

State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: San Francisco Regional Water Quality Control Board (Regional Water Board)	Address: 1515 Clay Street, Suite 400 Oakland, CA 94612
Agency Caseworker: Cherrie McCaulou	Case No.: 01-1094

Agency Name: Alameda County Water District (District)	Address: 43885 South Grimmer Blvd. Fremont CA 94538
Agency Caseworker: Thomas J. Berkins	Case No.: 0318

Case Information

USTCF Claim No.: 9432	GeoTracker Global ID: T0600101008
Site Name: Cal-West Concrete Cutting (Olympic)	Site Address: 44850 Industrial Drive Fremont, CA 94538
Responsible Party: Cal-West Concrete Cutting Attn: Weldon Birch	Address: PO Box 940, Fremont, CA 94538
USTCF Expenditures to Date: \$82,977	Number of Years Case Open: 21

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101008

Summary

The Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Policy is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model upon which the evaluation of the case has been made is described in **Attachment 2: Summary of Basic Case Information (Conceptual Site Model)**. Highlights of the case follow:

This case is a commercial warehouse facility. An unauthorized release was reported in June 1987 following the removal of two USTs (one gasoline, one diesel). Available records do not indicate if impacted soil was removed and disposed offsite. No soil or groundwater remediation has been implemented. Since 2008, five groundwater monitoring wells have been installed and irregularly monitored. According to groundwater data, water quality objectives have been achieved or nearly achieved for all constituents except benzene in monitoring wells MW-1, MW-2 and MW-3.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no supply wells regulated by the California Department of Public Health or surface water bodies within 1,000 feet of the projected plume boundary. No other water supply wells have been identified within 1,000 feet of the projected plume boundary in files reviewed. Water is provided to water users near the Site by the Alameda County Water District. The affected

groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of impacted groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting. Remaining petroleum hydrocarbon constituents are limited and stable, and concentrations are decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

Rationale for Closure under the Policy

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 1,000 feet from the projected plume boundary. The dissolved concentration of benzene is less than 3,000 µg/L, and the dissolved concentration of MTBE is less than 1,000 µg/L.
- Indoor Vapor Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 2a by Scenario 3a. The maximum benzene concentration in groundwater is less than 100 µg/L. The minimum depth to groundwater is greater than 5 feet, overlain by soil containing less than 100 mg/kg of TPH.
- Direct Contact Risk from Residual Petroleum Hydrocarbons: This case meets Policy Criterion 3b. Although no document titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to residual soil contamination was completed by Fund staff. The results of the assessment found that maximum concentrations of petroleum constituents remaining in soil will have no significant risk of adversely affecting human health. The Site is paved and accidental exposure to site soils is prevented. Therefore, the pathway is incomplete.

Objections to Closure and Responses

The District objects to UST case closure (February 13, 2013 email) because:

- The source of the UST release has been only partially identified. Additional sources may exist because the piping and dispenser have not been removed.
RESPONSE: Based on the groundwater data, minimum petroleum hydrocarbon mass remains in the soil to further impact shallow groundwater. Data do not support the existence of additional sources.
- Water supply survey has not been completed.
RESPONSE: According to GeoTracker no California Department of Public Health regulated supply wells were identified within 1,000 feet of the edge of the plume defined by water quality objectives. Heavy commercial/industrial areas rarely have domestic supply wells.
- Lateral extent of the groundwater plume has not been defined
RESPONSE: The lateral extent of the groundwater plume is projected to be less than 250 feet in length.

- No investigation has been performed to date to determine the potential for petroleum vapor intrusion.
RESPONSE: Existing data show the Site meets the Policy criteria for petroleum vapor intrusion. No further assessment of vapor intrusion is necessary.

Determination

Based on the review performed in accordance with Health & Safety Code Section 25299.39.2 subdivision (a), the Fund Manager has determined that closure of the case is appropriate.

Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. Alameda County Water District has the regulatory responsibility to supervise the abandonment of monitoring wells.



Lisa Babcock, P.G. 3939, C.E.G. 1235



Date

Prepared by: Pat G. Cullen, P.G. #4932

ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The case complies with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the Site do not pose significant risk to human health, safety, or the environment.

The case complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.¹

<p>Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST site closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this case?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>If so, was the corrective action performed consistent with any order?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><u>General Criteria</u> General criteria that must be satisfied by all candidate sites:</p> <p>Is the unauthorized release located within the service area of a public water system?</p> <p>Does the unauthorized release consist only of petroleum?</p> <p>Has the unauthorized (“primary”) release from the UST system been stopped?</p> <p>Has free product been removed to the maximum extent practicable?</p> <p>Has a conceptual site model that assesses the nature, extent, and mobility</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>

¹ Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.
http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

<p>of the release been developed?</p> <p>Has secondary source been removed to the extent practicable?</p> <p>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</p> <p>Nuisance as defined by Water Code section 13050 does not exist at the Site?</p> <p>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><u>Media-Specific Criteria</u> Candidate sites must satisfy all three of these media-specific criteria:</p> <p>1. Groundwater: To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:</p> <p>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</p> <p>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</p> <p>If YES, check applicable class: <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p>For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p>2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.</p> <p>Is the Site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.</p> <p>a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>

<p>of the applicable characteristics and criteria of scenario 4? If YES, check applicable scenarios: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4</p> <p>b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p>3. Direct Contact and Outdoor Air Exposure: The Site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).</p> <p>a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?</p> <p>b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>

ATTACHMENT 2: SUMMARY OF BASIC CASE INFORMATION (Conceptual Site Model)

Site Location/History

- This Site is a commercial warehouse located in the City of Fremont.
- The warehouse is a large concrete tilt-up structure with asphalt and concrete surfacing surrounding the building. The Site is surrounded with commercial/industrial sites.
- Two fuel USTs were removed in 1992; however, the product lines and dispenser remain.
- Site maps showing the location of the former USTs, monitoring wells, groundwater level contours, and benzene concentrations are provided at the end of this closure review summary (AEI Consultants, January 2010).
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source: UST system.
- Date reported: April 1992.
- Status of Release: USTs removed.

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active	Date
1	5,000	Gasoline	Removed	April 1992
2	10,000	Diesel	Removed	April 1992

Receptors

- GW Basin: Santa Clara Valley – Niles Cone.
- Beneficial Uses: The Regional Water Board Basin Plan lists municipal, domestic, industrial process water and agricultural supply.
- Land Use Designation: Commercial and Industrial.
- Public Water System: Alameda County Water District
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no public supply wells regulated by the California Department of Public Health within 1,000 feet of the projected plume boundary. No other water supply wells were identified within 1,000 feet of the projected plume boundary in the files reviewed.
- Distance to Nearest Surface Water: There is no identified surface water within 1,000 feet of the projected plume boundary.

Geology/Hydrogeology

- Stratigraphy: The Site is underlain by interbedded clays, sands and gravel.
- Maximum Sample Depth: 21 feet below ground surface (bgs).
- Minimum Groundwater Depth: 4.56 feet bgs at monitoring well MW-1.
- Maximum Groundwater Depth: 12.42 feet bgs at monitoring well MW-2.
- Current Average Depth to Groundwater: Approximately 6.75 feet bgs.
- Saturated Zones(s) Studied: Approximately 7-20 feet bgs.
- Appropriate Screen Interval: Yes.
- Groundwater Flow Direction: Generally south-southwest with an average gradient of 0.002 feet/foot (December 2009).

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (12/22/2009)
MW-1	December 2000	6-21	6.16
MW-2	December 2000	6-21	7.31
MW-3	December 2000	6-21	7.05
MW-4	December 2000	6-21	7.13
MW-5	December 2000	6-21	6.14

NM: Not measured

Remediation Summary

- Free Product: None reported.
- Soil Excavation: None Reported.
- In-Situ Soil Remediation: None Reported.
- Groundwater Remediation: None Reported.

Most Recent Concentrations of Petroleum Constituents in Soil

Constituent	Maximum 0-5 feet bgs [mg/kg and (date)]	Maximum 5-10 feet bgs [mg/kg and (date)]
Benzene	NA	NA
Ethylbenzene	NA	NA
Naphthalene	NA	NA
PAHs	NA	NA

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: Milligrams per kilogram, parts per million

<: Not detected at or above stated reporting limit

PAHs: Polycyclic aromatic hydrocarbons

Most Recent Concentrations of Petroleum Constituents in Groundwater

Sample	Sample Date	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-1	12/22/2009	170	54	0.66	1.1	1.1	<10
MW-2	12/22/2009	110	11	0.53	<0.5	<30	<30
MW-3	12/22/2009	840	230	2.9	3.5	<25	<25
MW-4	12/22/2009	<50	<0.5	<0.5	<0.5	<5	<5
MW-5	12/22/2009	85	0.97	0.78	<0.5	<5	<5
WQOs		--	1	150	700	1,750	5

NA: Not Analyzed, Not Applicable or Data Not Available

µg/L: Micrograms per liter, parts per billion

<: Not detected at or above stated reporting limit

TPHg: Total petroleum hydrocarbons as gasoline

TPHd: Total petroleum hydrocarbons as diesel

MTBE: Methyl tert-butyl ether

TBA: Tert-butyl alcohol

WQOs: Water Quality Objectives, Regional Water Board Basin Plan

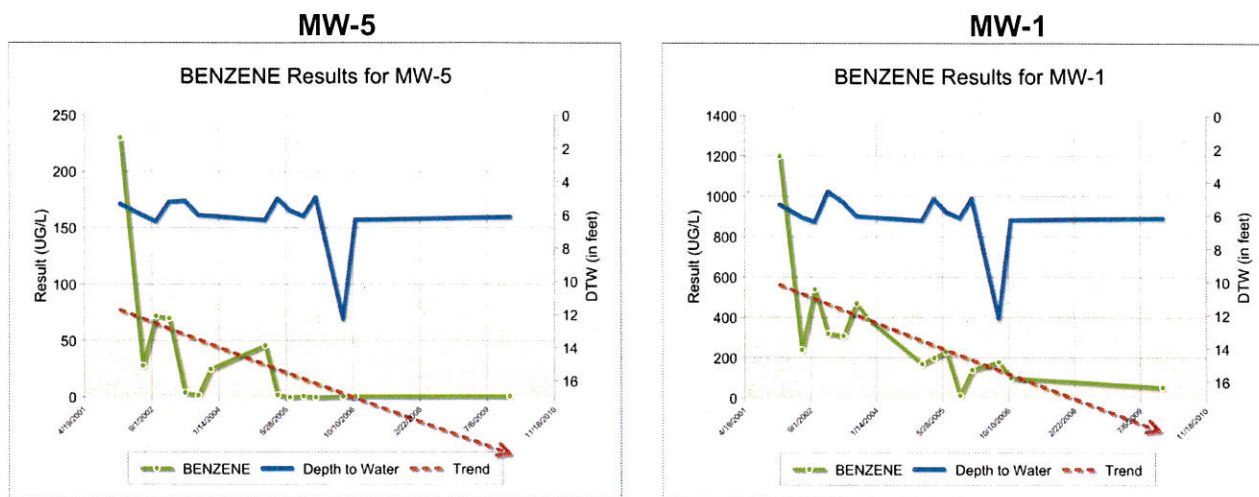
--: Regional Water Board Basin Plan does not have a numeric water quality objective for TPHg

^a: Secondary maximum contaminant level (MCL)

^b: California Department of Public Health, Response Level

Groundwater Trends

- Since 2000, five groundwater monitoring wells have been installed and regularly monitored. Benzene trends for the two wells downgradient of the source area are presented below.



Evaluation of Current Risk

- Estimate of Hydrocarbon Mass in Soil: None reported.
- Soil/Groundwater tested for methyl tert-butyl ether (MTBE): Yes.
- Oxygen Concentrations in Soil Vapor: None reported.
- Plume Length: <250 feet long.
- Plume Stable or Decreasing: Yes.
- Contaminated Zone(s) Used for Drinking Water: No.
- Groundwater Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 1,000 feet from the projected plume boundary. The dissolved concentration of benzene is less than 3,000 µg/L, and the dissolved concentration of MTBE is less than 1,000 µg/L.
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