

**SAN MATEO COUNTY GROUNDWATER PROTECTION PROGRAM  
CASE CLOSURE M E M O R A N D U M  
SOILS ONLY (optional)**

**TO:** File  
**FROM:** Groundwater Protection Program Staff  
**DATE:**  
**SUBJECT:** SMCo Case #  
SITE NAME  
ADDRESS  
APN

**BACKGROUND HISTORY**

Provide a brief description of site, surrounding areas, and current land use. Describe activity which discovered contamination.

**CLOSURE RATIONALE**

**EITHER:**

This case is considered a low-risk groundwater (or soil) case as defined by the California Regional Water Quality Control Board, San Francisco Bay Region's memorandum termed "Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites". Based on the Interim Guidance, the site qualifies for closure for the following reasons.

- (1) **The leak has been stopped and ongoing sources, including free product, have been removed or remediated.**
- (2) **The site has been adequately characterized.**  
The extent of the impact to soil has been adequately characterized. The highest concentration noted on site is . The extent of contaminant-impacted groundwater has also been characterized. The highest noted concentration on site is .
- (3) **The dissolved hydrocarbon plume is not migrating.**
- (4) **No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.**  
The closest known surface water receptor in the area is
- (5) **The site presents no significant risk to human health.**  
Based on , it does not appear the site presents a significant risk to human health.
- (6) **The site presents no significant risk to the environment.**  
Based on , it does not appear the site presents a significant risk to the environment.

**OR:**

Based on the California State Water Resource Control Board's Low-Threat Petroleum Closure Policy effective August 17, 2012 the site qualifies for closure for the following reasons.

General Criteria:

- a) **The unauthorized release located within the service area of the public water system.**
- b) **The unauthorized release consist only of petroleum.**
- c) **The unauthorized (“primary”) release from the UST system been stopped.**
- d) **Free product has been removed to the maximum extent practicable.**
- e) **A conceptual site model that assesses the nature, extent, and mobility of the release been developed.**
- f) **Secondary source been removed to the extent practicable.**
- g) **Soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15.**
- h) **Nuisance as defined by Water Code section 13050 does not exist at the site.**
- i) **Any unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents.**

Media Specific Criteria:

**Groundwater**

EITHER:

The contaminant plume that exceeds water quality objectives is stable or decreasing in areal extent, and meets all of the additional characteristics of the following class:

Classes:

- (1)
  - a. The contaminant plume that exceeds water quality objectives is less than 100 feet in length.
  - b. There is no free product.
  - c. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.
- (2)
  - a. The contaminant plume that exceeds water quality objectives is less than 250 feet in length.
  - b. There is no free product.
  - c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.

- d. The dissolved concentration of benzene is less than 3,000 micrograms per liter ( $\mu\text{g/l}$ ), and the dissolved concentration of MTBE is less than 1,000  $\mu\text{g/l}$ .
- (3)
  - a. The contaminant plume that exceeds water quality objectives is less than 250 feet in length.
  - b. Free product has been removed to the maximum extent practicable, may still be present below the site where the release originated, but does not extend off-site.
  - c. The plume has been stable or decreasing for a minimum of five years.
  - d. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
  - e. The property owner is willing to accept a land use restriction if the regulatory agency requires a land use restriction as a condition of closure.
- (4)
  - a. The contaminant plume that exceeds water quality objectives is less than 1,000 feet in length.
  - b. There is no free product.
  - c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
  - d. The dissolved concentration of benzene is less than 1,000  $\mu\text{g/l}$ , and the dissolved concentration of MTBE is less than 1,000  $\mu\text{g/l}$ .
- (5)
  - a. The regulatory agency determines, based on an analysis of site specific conditions that under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame.

OR:

The releases have not affected groundwater and the mobile constituents (leachate, vapors, or light non-aqueous phase liquids) do not contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria.

### **Vapor Intrusion to Indoor Air**

The site is considered low-threat for vapor intrusion to indoor air because site-specific conditions satisfy all of the characteristics of the following class of site and/or if the exception for active commercial fueling facilities applies.

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.

Classes:

- a) Site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of the following scenario.

Scenarios:

1: Unweathered LNAPL in Groundwater - The bioattenuation zone is a continuous zone that provides a separation of at least 30 feet vertically between the LNAPL in groundwater and the foundation of existing or

potential buildings, and total TPH (TPH-g and TPH-d combined) are <100 mg/kg throughout the entire depth of the bioattenuation zone

2: Unweathered LNAPL in Soil - The bioattenuation zone is a continuous zone that provides a separation of at least 30 feet both laterally and vertically between the LNAPL in soil and the foundation of existing or potential buildings, and total TPH are <100 mg/kg throughout the entire depth of the bioattenuation zone.

3: Dissolved Phase Benzene Concentrations Only in Groundwater (Low concentration groundwater scenarios with or without O<sub>2</sub> measurements must satisfy one i, ii, or iii):

- i. For bioattenuation zone without oxygen measurements or oxygen <4% and benzene concentration are <100 µg/L, the bioattenuation zone: Is a continuous zone that provides a separation of at least 5 feet vertically between the dissolved phase benzene and the foundation of existing or potential building; and contain total TPH <100 mg/kg throughout the entire depth of the bioattenuation zone.
- ii. For bioattenuation zone without oxygen measurements or oxygen <4% and benzene concentration are >100 µg/L but <1,000 µg/L, the bioattenuation zone: Is a continuous zone that provides a separation of at least 10 feet vertically between the dissolved phase benzene and the foundation of existing or potential building, and contain total TPH <100 mg/kg throughout the entire depth of the bioattenuation zone.
- iii. For bioattenuation zone with oxygen ≥ 4% and benzene concentration are <1,000 µg/L, the bioattenuation zone: Is a continuous zone that provides a separation of at least 5 feet vertically between the dissolved phase benzene and the foundation of existing or potential building, and contain total TPH <100 mg/kg throughout the entire depth of the bioattenuation zone.

4: Direct Measurement of Soil Gas Concentrations

- i. Soil Gas Sampling Locations – No Bioattenuation Zone:
  - Beneath or adjacent to an existing building: Soil gas sample is collected at least 5 feet below the bottom of the building foundation.
  - Future construction: The soil gas sample shall be collected from at least 5 feet below the ground surface (bgs).
- ii. Soil Gas Sampling Locations – with Bioattenuation Zone:

The criteria in Column A in the Soil Gas Criteria table (page 5 of the Policy) apply if the following requirements for a bioattenuation zone are satisfied:

  - Minimum of 5 feet of soil between the soil vapor measurement and the foundation of an existing or ground

surface of future construction.

- TPH (TPHg + TPHd) is <100 mg/kg (measured in at least two depths within the 5-ft zone)

- Oxygen is  $\geq 4\%$  measured at the bottom of the 5-ft zone.

- b) 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.
- c) As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health.

**Direct Contact and Outdoor Air Exposure:**

The site is considered low-threat for direct contact and outdoor air exposure because site-specific conditions satisfy the following class.

Classes:

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).

Maximum concentrations of petroleum constituents in soil are less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health.

As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

**RECOMMENDATIONS**

Based on the investigation, and other information which is currently and actually known to this agency, we have determined that all appropriate response actions have been completed, all acceptable or remedial practice were implemented, and further investigation, remedial/removal action, or monitoring is not required at the site with regard to a release of hazardous waste or substance from the UNDERGROUND STORAGE TANKS located at the site. We have determined that a significant release of contamination has not occurred and the shallow waters have not been significantly impacted. San Mateo County Groundwater Protection Program staff have determined that the water quality objectives of the San Francisco Bay Regional Water Quality Control Board have been satisfied.

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STAFF NAME, Haz-Mat Specialist II/III/IV

Date

**SAN MATEO COUNTY CASE CLOSURE SUMMARY  
LEAKING UNDERGROUND FUEL STORAGE TANKS PROGRAM  
SOILS ONLY (optional)**

**Agency Information**

Agency Name: San Mateo County	Address: 2000 Alameda de las Pulgas, Suite 100
City/State/Zip: San Mateo, CA 94403	Phone: (650)372-62
Staff Person:	Title: Hazardous Materials Specialist III

**Case Information:** (expand if needed)

Facility Name:		
Facility Address:		
RB LUSTIS Case No:	Local Case No.:	APN.:
URF Filing Date:	Geotracker No.:	
Responsible Party(s):	Address:	Phone:

**Tank Information** (Delete table if Tank info becomes a tab in GeoTracker and included in CSM Report)

Tank No.	Size (gal)	Contents	Closed in-Place/ Removed/Active	Date

**Conceptual Site Model** (Attach printout of GeoTracker CSM Report including soil and groundwater data)

**Closure Criteria Met** (Attach printout of GeoTracker LTCP Checklist)

**Optional Site map(s)** (Show GT URL or attach most recent relevant report map(s), if any, showing groundwater flow direction and any residual hydrocarbon plume defined by water quality objectives)

**Additional Information:**

- Post-remedial information: Residual contamination, if any;

An unknown amount of hydrocarbon impacted soil and groundwater remains in the subsurface at the site. City of \_\_\_\_\_ Building Department has been notified that should excavation or development of the property be proposed that may encounter impacted soil or groundwater, San Mateo County Environmental Health Division must be notified as required by Government Code Section 65850.2.

A deed restriction was voluntarily entered into by the property owner of 123 A Street, San Mateo and San Mateo County Health Department restricting the land use at the site to commercial and specifically excluding residential land uses included day care facilities, medical facilities, and senior living facilities. The land use restriction may be removed under conditions described in the deed restriction. City of \_\_\_\_\_ Building Department has been notified that should development of the property be proposed that may cause residential land use to occur at the site, San Mateo County Environmental Health Division must be notified as required by Government Code Section 65850.2.

**RWQCB Notification**

Date Form Sent:

RWQCB Staff Name: Cheryl Prowell	Title: Water Resources Engineer
RWQCB Staff Name:	Title:

**Local Agency Representative**

Name: Heather Forshey, MS, REHS	Title: Director, Environmental Health
Signature:	Date: