

State Water Resources Control Board

REVIEW SUMMARY REPORT – ADDITIONAL WORK  
FIRST REVIEW – JUNE 2016

Agency Information

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| Agency Name: San Mateo County<br>Environmental Health<br>Department (County) | Address: 2000 Alameda De Las Pulgas<br>San Mateo, CA 94403 |
| Agency Caseworker: Jacob Madden  | Case No.: 550109   |

Case Information

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|--|---|
| USTCF Claim No.: 18790                                     | GeoTracker Global ID: T0608100646                                   |
| Site Name: REH Properties                                  | Site Address: 114 South Maple Avenue<br>So. San Francisco, CA 94080 |
| Responsible Party: REH Properties<br>Attn: Richard Haskins | Address: 114 South Maple Avenue<br>So. San Francisco, CA 94080      |
| USTCF Expenditures to Date: \$292,268                      | Number of Years Case Open: 28                                       |
| Current Fund Budget Category: VM – Verification Monitoring |   |

To view all public documents for this case available on GeoTracker use the following URL:  
[http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0608100646](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100646)

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 does not meet all of the required criteria of the Policy. Highlights of the case follow:

This case is a construction equipment and materials supplier. Current site facilities consist of two commercial warehouses that were formerly used for large equipment maintenance; the former USTs associated with the site were used to fuel the large equipment. An unauthorized release was reported in August 1987 following the first UST removal event documented at the site. A summary of UST removals and replacements and other soil excavation activities includes:

- In August 1987, two diesel USTs were removed and two waste oil USTs were removed and replaced. These USTs were located in various locations near the maintenance garage on the south side of the property. One of the waste oil USTs was replaced with another waste oil UST and one was replaced with a waste solvent UST. There are no records available to indicate whether contaminated soil was excavated and removed from the site during these activities.
- In October 1992, one solvent UST located directly adjacent to the south side maintenance garage was removed. In December 1994, an unrecorded volume of soil was excavated to a depth of 13 feet below ground surface (bgs) at the location of the solvent UST, and the soil was disposed offsite.
- In October 1999, one solvent, two waste oil, and two diesel USTs, near the south side maintenance garage, including the two USTs installed in 1987, were removed and 500 to

800 tons of soil were excavated and disposed offsite. In September and October 2004, 150 to 170 tons of soil were overexcavated and disposed offsite from areas near the locations of two of the USTs removed in 1999.

- In June 2005, two diesel and two gasoline USTs, and the related fuel dispensers, were removed from west of the garage located on the north side of the property. An unrecorded volume of contaminated soil was excavated to depths between 10 and 12 feet bgs in the area of the USTs and to 7 feet bgs in the area of the dispensers. Approximately 8,000 gallons of contaminated groundwater were removed from the UST pit during excavation activities.
- In April 2009, 200 cubic yards of soil were excavated to 6 feet bgs to the north directly adjacent to the south side maintenance garage.
- In June 2014, the area of well MW-6 was excavated to depths of 6 to 10 feet bgs and 96 cubic yards of soil were removed. The excavation was performed to completely remove well MW-6 in which 2.6 feet of free product had been measured in 2014.

Excavation is the only form of remediation that has been performed at the site. Since 1998, six groundwater monitoring wells have been installed and regularly monitored. All six wells have been destroyed. According to groundwater data, water quality objectives have been achieved or will be achieved in a reasonable timeframe.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no public water supply wells within 1,000 feet of the defined plume boundary. No other water supply wells have been identified within 1,000 feet of the defined plume boundary in files reviewed. The concrete-lined Colma Creek canal is located approximately 225 feet north (crossgradient) of the defined plume boundary. The unauthorized release is located within the service area of a public water system, as defined in the Policy. The affected shallow groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected shallow groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of the affected shallow groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting.

#### **Rationale for Closure under the Policy**

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 5. The Colma Creek canal is located approximately 250 feet north (crossgradient) of the Site. If not for the canal, this case would satisfy Policy Criterion 1 by Class 2. The contaminant plume that exceeds WQOs is less than 250 feet in length. There is no free product. The nearest water supply well is greater than 1,000 feet from the defined plume boundary. The dissolved concentration of benzene is less than 3,000 micrograms per liter ( $\mu\text{g/L}$ ) and the dissolved concentration of methyl tertiary butyl ether (MTBE) is less than 1,000  $\mu\text{g/L}$ . The State Water Board staff has determined, based on an analysis of site specific conditions 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.
- Vapor Intrusion to Indoor Air: The case does not meet this criterion because the most recent sub-slab soil gas concentrations (August 2015) exceed the values prescribed in the Policy.
- Direct Contact and Outdoor Air Exposure: The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use, and the concentration limits for a Utility Worker are not exceeded.

**Objections to Closure and Responses**

According to the LTCP Checklist in GeoTracker, last updated on April 7, 2015, County staff objects to UST case closure because:

Comment: The case does not meet the Policy vapor intrusion to indoor air criterion.

Response: State Water Board staff agree that the case does not meet the vapor intrusion to indoor air criterion based on current data. However, based on the use of propane-fueled forklifts inside the garages, the ventilation systems are required to control vehicle exhaust through adequate air exchange. The garages have multiple rollup doors and roof ventilators that should prevent the accumulation of harmful levels of gases inside. According to the 26<sup>th</sup> Edition (2006) of *Industrial Ventilation: A Manual of Recommended Practice for Design*, by the American Conference of Governmental Industrial Hygienists (ACGIH), the recommended dilution rate for this type of facility is 10,000 cubic feet per minute for each propane-fueled forklift. The current ACGIH-recommended dilution rate and the dilution rate required in the local building code may differ, and the number of forklifts that could be in use at any time must be confirmed. If the required minimum dilution rate can be confirmed for the south side maintenance garage where sub-slab vapor probes indicated elevated vapor concentrations, the case would meet Policy Criterion 2c as a result of controlling exposures through the use of mitigation measures or through the use of institutional or engineering controls.

**Recommendation**

State Water Board staff recommend that the County direct the Responsible Party to perform an evaluation of the air exchange rate for the south side maintenance garage. Upon receipt of favorable results from this evaluation, County staff should reevaluate the case for closure. If this evaluation does not provide results indicating that Policy Criterion 2c has been met, State Water Board staff recommend one or more of the following options to satisfy the Policy vapor intrusion to indoor air criterion:

- Conduct a site-specific risk assessment for the vapor intrusion pathway to determine whether human health is protected under current site conditions;
- Collect indoor air samples from the south side maintenance garage, as well as outdoor samples to use as a control, and compare the results to the low threat values prescribed in the Policy; and/or,
- Provide engineering controls, either sub-slab or indoor, to mitigate the threat from residual soil gas concentrations, such that the Policy vapor intrusion criterion is satisfied.

The recommended Fund budget category for this claim is: VM-Verification Monitoring

 6/14/16  
Date

William E. Brasher, P.E.  
Water Resource Control Engineer  
Technical Review Unit  
(916) 341-5476

 6/14/16  
Date

Pat G. Cullen, P.G.  
Senior Engineering Geologist  
Chief, Technical Review Unit  
(916) 341-5684