

State Water Resources Control Board

UNDERGROUND STORAGE TANK (UST) CASE CLOSURE SUMMARY

Agency Information

Agency Name: Sacramento County Environmental Management Department (SCEMD)	Address: 10590 Armstrong Avenue, Suite A Mather, CA 95655
Agency Caseworker: David Von Aspern	Case No.: G073/RO 1549

Case Information

UST Cleanup Fund (Fund) Claim No.: 18389	Global ID: T0606706902
Site Name: Quik Stop Market (Former Associated Gas Sta.)	Site Address: 3920 Fruitridge Road Sacramento, CA 95820 (Site)
Petitioner: Quik Stop Markets Attention: Mr. Roger Batra	Address: 4567 Enterprise Street Fremont, CA 94538
Fund Expenditures to Date: \$492,615	Number of Years Case Open: 18

[GeoTracker Case Record](http://geotracker.waterboards.ca.gov/?gid=T0606706902): <http://geotracker.waterboards.ca.gov/?gid=T0606706902>

Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy because they pose a low threat to human health, safety, and the environment. The Site meets all of the required criteria of the Policy and therefore, is subject to closure.

Historical aerial photographs indicate that the Site operated as a gasoline service station from at least 1957 to 1981 and was redeveloped to its current configuration by 1991. The Site currently operates as a Quik Stop Market. Prior to redevelopment, all previous aboveground features (i.e. dispenser islands) were removed. No UST records are available; however, a 1981 historical aerial photograph indicates that at least two USTs were located on the southeast portion of the Site during gasoline service station

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operations. Results from a 2006 ground penetration radar and metal detection survey indicate that the USTs and product piping were likely removed from the Site.

A historical petroleum hydrocarbon release was discovered at the Site in 2002 during investigation activities at the nearby Hite's Market SS property (GeoTracker No. T0606700907). Assessment and remediation at the Site have been ongoing since 2005. Between 2009 and 2011, soil vapor extraction removed approximately 8,805 pounds of vapor phase petroleum hydrocarbons from the subsurface. An additional 60.6 pounds of vapor phase petroleum hydrocarbons were removed during dual-phase extraction events in 2011 and 2013. Approximately 58,390 gallons of petroleum-impacted groundwater was also removed during dual-phase and groundwater extraction events conducted between 2011 and 2017.

Concentrations of petroleum hydrocarbons have decreased significantly in groundwater due to remediation and natural attenuation. The extent of the dissolved hydrocarbon plume has been adequately defined by the current monitoring well network and recent grab-groundwater samples. The length of the current groundwater plume is less than 250 feet and residual petroleum hydrocarbons are not likely to impact the drinking water supply. No petroleum hydrocarbons were detected in shallow soil between 0 and 10 feet below ground surface (ft bgs). Due to questionable sampling and handling procedures, soil vapor samples collected in 2016 were unreliable and the data was not considered to assess the soil vapor risk at the Site. However, based on the depth to groundwater (approximately 35 ft bgs) and the maximum hydrocarbon concentrations in soil and groundwater, soil vapor does not appear to pose a risk to human health. Remaining petroleum constituents are limited, stable, and decreasing. Additional assessment would be unnecessary and will not likely change the conceptual model. Any remaining petroleum constituents do not pose significant risk to human health, safety, or the environment under current conditions.

Rationale for Closure Under the Policy

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy
- Groundwater Media-Specific Criteria – Site meets the criteria in **Class 5**. 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, safety, and to the environment and water quality objectives will be achieved within a reasonable time frame.
- Petroleum Vapor Intrusion to Indoor Air – Site meets **Criteria 2 (a), Scenario 3**. As applicable, the extent of the bioattenuation zone, oxygen concentrations in soil gas, concentrations of total petroleum hydrocarbons as gasoline and diesel combined in soil, and dissolved concentrations of benzene in groundwater meet the Policy.

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- Direct Contact and Outdoor Air Exposure – Site meets **Criteria 3 (a)**. Maximum concentrations of petroleum constituents in soil from confirmation soil samples are less than or equal to those listed in Table 1 of the Policy.

Objections to Closure

SCEMD staff objects to UST case closure because:

1. The Site is a nuisance because the Site plume threatens Fruitridge Vista Water Company (FVWC) Wells #5 and #14.

Response: To be defined as a “nuisance” under Water Code section 13050, a site must meet all of the following requirements:

- (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property;
- (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- (3) Occurs during, or as a result of, the treatment or disposal of wastes.

The Site does not meet all of the criteria of a nuisance as defined by Water Code section 13050 and thus, is not considered a nuisance. Groundwater beneath the site is located at approximately 35 ft bgs, so it is unlikely that residents, commercial workers, or utility workers will come in contact with residual contamination in shallow groundwater. According to GeoTracker’s Groundwater Ambient Monitoring and Assessment Program database, FVWC Wells #5 and #14 are located approximately 1,100 feet south and 650 feet southeast of the Site, respectively. Concentrations of 1,2-dichloroethane (1,2-DCA) that exceed water quality objectives (WQOs) extend offsite; however, it is unlikely that 1,2-DCA will impact either of the FVWC supply wells. A clay aquitard was noted between approximately 71 and 96 ft bgs and supply water in this area is pulled from approximately 150 to 350 ft bgs, so it is unlikely that shallow impacts of 1,2-DCA will impact the supply water aquifer. As such, it is unlikely that any residual impact in groundwater will affect the surrounding community. Additionally, there have been no restrictions placed on the Site or surrounding properties due to residual contaminants from the historical UST release.

2. The 1,2-DCA plume in groundwater is not properly defined and may require additional remediation.

Response: In October 2014, a grab-groundwater sample was collected from 33 to 38.5 ft bgs from boring HP-1, located downgradient of offsite well MW-7. Additionally, a grab-groundwater sample was collected at approximately 39 ft bgs from a former private irrigation well, located approximately 150 feet southeast of

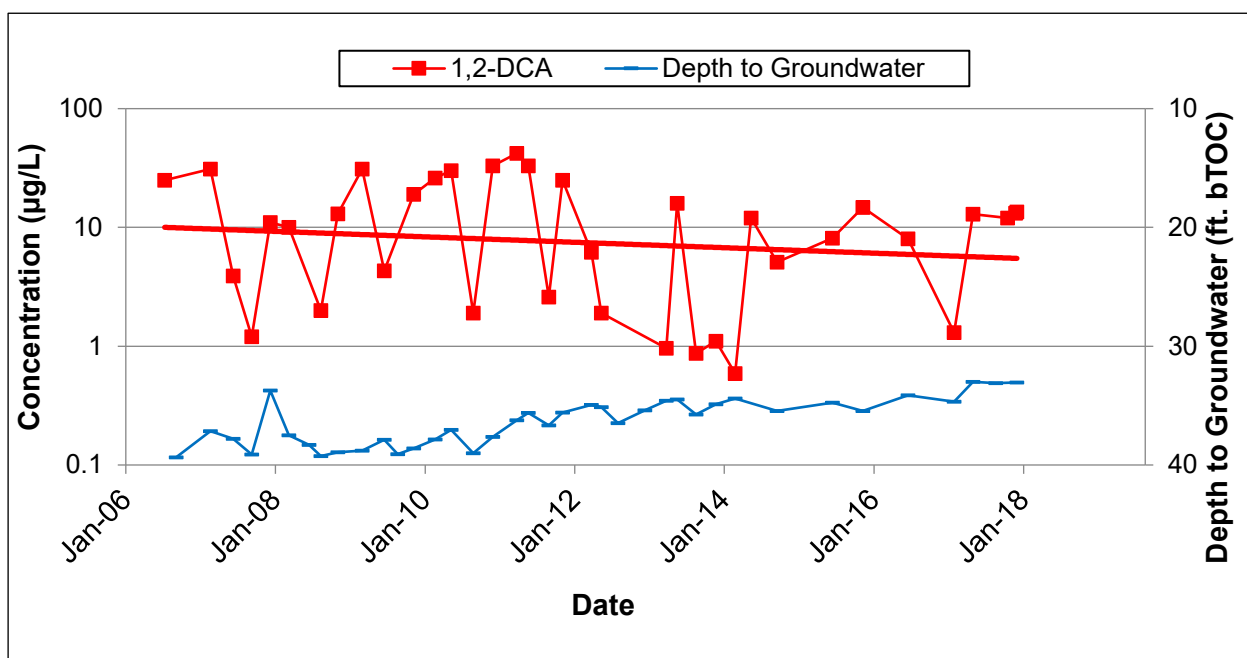
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well MW-7; the private irrigation well has since been destroyed according to the GeoTracker record. No 1,2-DCA was detected from either of the grab-groundwater samples collected in October 2014.

Based on the grab-groundwater results from HP-1 and the former private irrigation well, the plume appears defined in the downgradient direction. It is unlikely that residual 1,2-DCA remaining in groundwater at the Site will adversely impact human health or the environment. As such, no additional remediation is necessary.

3. The 1,2-DCA plume has not been shown to be stable or decreasing, so the timeframe to achieve WQOs cannot be predicted.

Response: The State Water Board plotted the 1,2-DCA data from downgradient well MW-7. As shown in the graph below, there are seasonal fluctuations in 1,2-DCA concentrations; however, the overall trend in 1,2-DCA concentrations indicates that the plume is stable to decreasing. Based on this information, the Site plume is defined and does not appear to pose a risk to human health or the environment.



4. Groundwater analytical data is missing from the GeoTracker record.

Response: The State Water Board has thoroughly reviewed the GeoTracker case record for the Site. The case record appears adequate and there are no significant data gaps that would alter the conceptual site model.

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5. Contaminant concentrations in MW-7 are increasing.


As shown in the graph above, 1,2-DCA in well MW-7 is stable to decreasing. No total petroleum hydrocarbons as gasoline, benzene, or methyl tertiary butyl ether have been detected in MW-7 since groundwater monitoring and sampling began in 2006. Low concentrations of tert-butyl alcohol have been periodically detected in MW-7; however, these concentrations are not indicative of an increasing trend.

6. Insufficient soil data has been collected from 5 and 10 ft bgs.

Response: In March 2018, eight soil borings (B-1 through B-8) were advanced across the Site and samples were collected from each boring at 5 and 10 ft bgs. The borings were advanced in the vicinity of the former dispenser islands, the former USTs, and the approximate locations of the former product piping. No hydrocarbons were found in any of the samples collected. Since the borings adequately covered the potential historical source areas and since samples were collected at 5 and 10 ft bgs from each location, adequate soil data has been collected to determine the extent of hydrocarbon impact in shallow soil.


Recommendation for Closure

The corrective action performed at this Site ensures the protection of human health, safety, and the environment. The corrective action performed at this Site is consistent with chapter 6.7 of division 20 of the Health and Safety Code, implementing regulations, applicable state policies for water quality control and applicable water quality control plans. Case closure is recommended.

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02/13/2020

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