

---

State Water Resources Control Board

## NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT

**UNDERGROUND STORAGE TANK CLEANUP FUND (FUND), CASE CLOSURE  
RECOMMENDATION, PURSUANT TO HEALTH AND SAFETY CODE SECTION 25299.39.2:  
CLAIM NUMBER: 6001; SITE ADDRESS:  
CHEVRON #9-0329; 340 HIGHLAND AVENUE, PIEDMONT, CA 94611**

**NOTICE IS HEREBY GIVEN THAT** the State Water Resources Control Board (State Water Board) will accept comments on the proposed underground storage tank (UST) case closure for Alameda County Environmental Health Care Agency case number RO0000269, 340 Highland Avenue, Piedmont, Alameda County. The State Water Board will be considering this UST case closure summary at a future board meeting. The meeting will be noticed separately.

Health & Safety Code section 25299.39.2 subdivision (a)(1) requires that the Fund Manager notify UST owners or operators who have a Letter of Commitment (LOC) that has been in active status for five or more years and to review the case history of these sites on an annual basis unless otherwise notified by the UST owner or operator. In addition, Health & Safety Code section 25299.39.2 further states that the Fund Manager, with approval of the UST owner or operator, may recommend regulatory case closure to the State Water Board. This process is called the “5-Year Review.” The State Water Board may close or require the closure of any UST case.

Having obtained the owner/operator’s approval, and pursuant to Health & Safety Code section 25299.39.2 subdivision (a)(1), the Fund Manager recommends closure of the UST. Enclosed is a copy of the UST Case Closure Summary for the UST case. The case closure summary contains information about the UST case and forms the basis for the UST Cleanup Fund Manager’s recommendation to the State Water Board for UST case closure. A copy of the Case Closure Summary has been provided to the owner/operator, environmental consultant of record, the local agency that has been overseeing corrective action, the local water purveyor, and the water district specified by Health & Safety Code section 25299.39.2 subdivision (a)(1).

New requirements specified in Health & Safety Code section 25299.39.2 subdivision (a)(2) require that the State Water Board limit reimbursement of any correction action costs incurred after the date of this letter to \$10,000 per year, excepting special circumstances.

**SUBMISSION OF WRITTEN COMMENTS**


Written comments on the case closure summary to the State Water Board **must be received by 12:00 Noon on November 5, 2012**. After the deadline, staff will not accept additional written comments unless the State Water Board determines that such comments should be accepted. Please provide the following information in the subject line: **“Comment Letter – Chevron #9-0329 Case Closure Summary.”** Comments must be addressed to:

Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor [95814]  
P.O. Box 100  
Sacramento, CA 95812-0100  
(tel) 916-341-5600  
(fax) 916-341-5620  
(email) [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Hand and special deliveries should also be addressed to Ms. Townsend at the address above. Couriers delivering comments must check in with lobby security and have them contact Ms. Townsend at (916) 341-5600.

Please direct questions about this notice to Bob Trommer, UST Cleanup Fund, at (916) 341-5684 ([btrommer@waterboards.ca.gov](mailto:btrommer@waterboards.ca.gov)) or Nathan Jacobsen, Staff Counsel at (916) 341-5181 ([njacobsen@waterboards.ca.gov](mailto:njacobsen@waterboards.ca.gov)).

September 4, 2012  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Jeanine Townsend  
Clerk to the Board

## State Water Resources Control Board

### UST CASE CLOSURE SUMMARY

#### Agency Information

Agency Name: Alameda County Environmental Health Department (Local Oversight Program (County))	Address: 1131 Harbor Bay Parkway, Alameda, CA 94502
Agency Caseworker: Mark Detterman	Case No. RO0000269

#### Case Information

USTCF Claim No.: 6001	Global ID: T0600101885
Site Name: Chevron #9-0329	Site Address: 340 Highland Avenue, Piedmont, CA 94611
Responsible Party: Chevron Environmental Management Company	Address: 6111 Bollinger Canyon Rd. San Ramon, CA 94583
USTCF Expenditures to Date: \$214,832	Number of Years Case Open: 29

URL: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101885](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101885)

#### Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Low-Threat Policy. This case meets all of the required criteria of the Low-Threat Policy. A summary evaluation of compliance with the Low-Threat Policy is shown in **Attachment 1: Closure of Underground Storage Tank Sites' Checklist for 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 Site Information**. Highlights of the Conceptual Site Model of the case follow:

This is currently an active service station. A leak was reported in 1983. Since 1983, nine monitoring wells have been installed, and contaminated soil excavated. No soil or groundwater remedial actions have been implemented. According to groundwater data, water quality objectives have been achieved for all constituents except for TPH gasoline (TPHg) in three wells (C-2, C-3 & C-4), total petroleum hydrocarbons diesel (TPHd) in one well (C-3 off Site source), benzene in one well (C-2), and MTBE in one well (C-2). No public supply wells regulated by the California Department of Public Health (CDPH) within ½ mile of the Site. A total of 41 domestic, irrigation, cathodic protection, and monitoring wells have been identified within a one mile radius of the Site. These wells are not at risk because the residual petroleum hydrocarbons at the Site do not leave the Site. Water is provided to water users near the Site by the East Bay Municipal Utility District. It is highly unlikely that any groundwater that may be impacted will be used as a source of drinking water or other beneficial use in the foreseeable future.

The petroleum release is limited to the shallow soil and groundwater. The affected groundwater is not currently being used as a source of drinking water or for any other beneficial use, and it is highly unlikely that the affected groundwater will be used as a source of drinking water or for any other beneficial use in the foreseeable future. Public supply wells are usually constructed with competent sanitary seals and intake screens that are in deeper more protected aquifers. 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, stable and concentrations declining. Remedial actions have been implemented and further remediation would be ineffective and expensive. Additional assessment/monitoring will not likely change the conceptual model. Any remaining petroleum hydrocarbon constituents do not pose significant risk to human health, safety or the environment. The corrective action performed is protective of human health, safety, and the environment.

### **Rationale for Closure under the Low-Threat Policy**

- General Criteria – Meets all eight general criteria.
- Groundwater – Site-specific analysis, using Groundwater-Specific Criterion (5)a, shows 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 timeframe.
- Vapor Intrusion to Indoor Air – Soil vapor evaluation is not required because site is an active commercial petroleum fueling facility.
- Direct Contact and Outdoor Air Exposure – This case meets Policy Criterion 3.B. A professional assessment of site-specific risk from exposure shows that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

### **Objections to Closure**

The County states the following:

- Possibility of undocumented filled UST excavations at the site. Because the size of the undocumented UST complex is unknown the groundwater investigation at the Site is incomplete. The County has requested a work plan to locate the size and depth of the unknown USTs and conduct another soil vapor and sub-slab vapor assessment.
- Groundwater monitoring wells have submerged well screens so reported concentrations of contaminants may be lower than actual concentrations.
- Significant source remains based on the concentrations in one well (C-2) and five very shallow soil borings (0.5 to 1.5 feet below ground surface (bgs)) which indicates a significant source.
- Significant dissolved concentrations are flowing off site in seepage at the surface, preferential pathways, or storm drains.

### **Response to Objections to Closure**

- A geophysical survey report was submitted on July 27, 2012, documenting that no other undocumented UST excavations are present at the Site.
- The wells have had submerged screens since 1983 and the County has accepted the data for 29 years and only recently raised a concern. During sampling activities, well


C-2 regularly is pumped dry during purging; the resulting sample, collected during recharge of the well, should be fairly representative of the groundwater conditions.

- Remaining concentrations in well C-2 are relatively low and decreasing. Contaminant plume is defined, stable and decreasing.
- In 2006, Cambria, conducted a Water Seep Assessment that reported that the primary constituents of concern when evaluating the risk associated with exposure to gasoline are the benzene, toluene, ethylbenzene, and toluene components. The results of the analysis of water ponded at the site during periods of seepage found that the ponded water does not pose significant risk to public health, safety or the environment. The dermal and vapor intrusion were also evaluated and did not meet the threshold criteria indicating adverse impact to indoor air quality.

### **Fund Manager Recommendation for Closure**

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

  
\_\_\_\_\_  
**Lisa Babcock, P.G. 3939, C.E.G. 1235**

  
\_\_\_\_\_  
**Date**

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

The site 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 site complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.<sup>1</sup>**

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

<sup>1</sup> Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

<p><b>Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?</b></p> <p><b>Has secondary source been removed to the extent practicable?</b></p> <p><b>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</b></p> <p><b>Nuisance as defined by Water Code section 13050 does not exist at the site?</b></p> <p><b>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</b></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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><b><u>Media-Specific Criteria</u></b> Candidate sites must satisfy all three of these media-specific criteria:</p> <p><b>1. Groundwater:</b> 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><b>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</b></p> <p><b>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</b></p> <p>If YES, check applicable class: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5</p> <p><b>Do site soils contain insufficient mobile constituents (leachate, vapors, or light non-aqueous phase liquids) to threaten groundwater?</b></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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
<p><b>2. Petroleum Vapor Intrusion to Indoor Air:</b> 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><b>Is the site an active commercial petroleum fueling facility?</b> 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><b>a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?</b></p> <p>If YES, check applicable scenarios: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4</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><b>b.</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><b>c.</b> 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><b>3. Direct Contact and Outdoor Air Exposure:</b> 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><b>a.</b> 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>b.</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><b>c.</b> 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 SITE INFORMATION (Conceptual Site Model)**

### **Site Location/History**

- The Site is currently an active service station operating at the corner of Highland Avenue and Highland Way in the City of Piedmont. The Site was formerly owned and operated by Chevron but was sold in 1990 to the Hoffman Investment Company.
- The land use in the immediate vicinity of the Site is commercial.
- In June 1983, soil contamination was identified.
- Nine monitoring wells have been installed and monitored regularly.
- Site map showing the location of the Site facilities, monitoring wells, and groundwater level contours is included at the end of this summary.

### **Pollutant Source**

- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source, Date reported, and Status of Release: UST system, January 1983, USTs removed in 1989. A second source, City of Piedmont City Hall, is responsible for the diesel in the immediate area which is upgradient of the Site.
- Neither diesel nor oxygenated fuels were sold on this Site during Chevron's operation of the service station.
- Free-Phase Hydrocarbons: Historically, none currently.

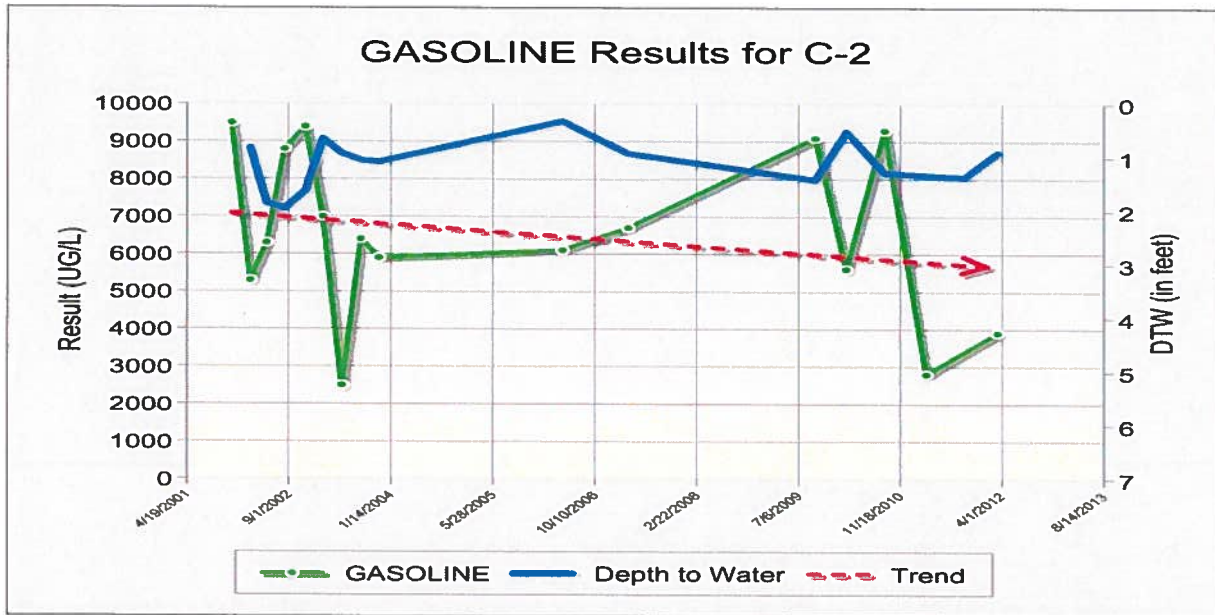
### **Geology/Hydrogeology**

- Stratigraphy: A thin 2.5 to 5.0 foot-thick veneer of silts and sands is underlain by shallow bedrock, sandstone.
- Maximum Sample Depth: 18 feet bgs.
- Minimum Groundwater Depth: Artesian at monitoring well MW-6.
- Maximum Groundwater Depth: 6.4 feet (bgs) at monitoring well C-4.
- Current Average Depth to Groundwater: 1.5 feet bgs.
- Saturated Zones(s) Studied: Surface to 18 feet bgs.
- Groundwater Flow Direction: Southerly with an average gradient of 0.04 feet/foot (ft/ft) (March 2012).

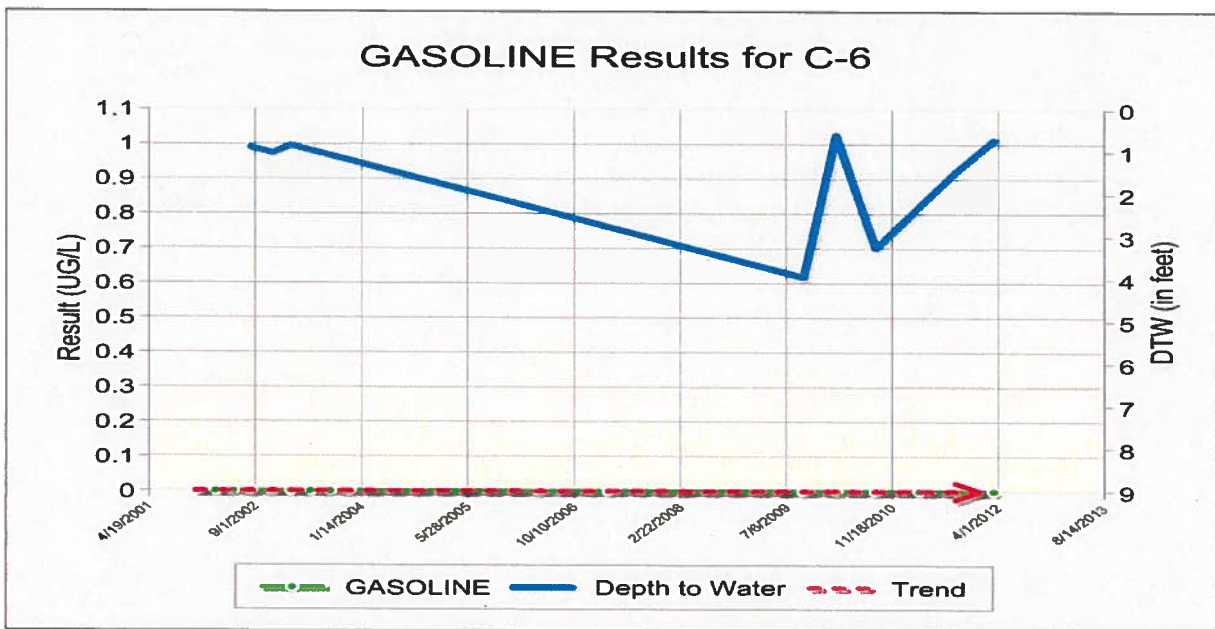
### **Groundwater Trends:**

- There are 29 years of groundwater monitoring data for this Site that demonstrates the concentrations are decreasing and the plume is stable. Well C-2 is in the source area and well C-6 is 90 feet downgradient.

Source Area Well



Down Gradient Well



### Receptors

- GW Basin: Santa Clara Valley - South Bay - East Bay Cities.
- Beneficial Uses: Municipal and Domestic Supply.
- Land Use Designation: Commercial.
- Public Water System: East Bay Municipal Utility District.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no public supply wells regulated by CDPH within ½ mile of the Site. City of Piedmont Well #4 is located approximately 0.11 miles south of the Site and is used as an irrigation well for the City Park. Thirteen domestic and 28 other (monitoring, cathodic protection and irrigation) private wells were identified within a one mile radius of the Site.
- Distance to Nearest Surface Water: An intermittent creek is located in Piedmont Park approximately 336 feet south of the Site.

### Risk Criteria

- Estimate of Hydrocarbon Mass in Soil: None reported.
- Soil/Groundwater tested for MTBE: Yes, see table below.
- Plume Length, Extent and Mobility: Petroleum hydrocarbon constituents are limited to a very small area downgradient of the former USTs near well C-2. The constituents of petroleum hydrocarbons present are a combination of upgradient sources (City Hall), possible fill material imported (not typical TPHd), current operations (MTBE and benzene) and past operations. This mix of sources indicates the petroleum hydrocarbons are moderately mobile in the thin veneer of soil overlying bedrock.
- Contaminated Zone(s) Used for Drinking Water: No.
- Risk from Residual Petroleum Hydrocarbon: RBCA Tier 2 evaluation completed, in 2002, for possible use as future residential land use. Using the residential risk factor of  $1 \times 10^6$  and the site conditions, contaminants indicate the risk was acceptable except for the ingestion pathway. Groundwater is not used in the area for a drinking water source. In 2006, soil vapors were resampled and were at concentrations below the environmental screening level for petroleum hydrocarbon constituents. The most current soil concentrations are below the thresholds in Table 1 of the Policy. However, there are no results in GeoTracker for naphthalene. The amount of naphthalene in gasoline is very low – generally on the order of 0.25 percent (Potter and Simmons, 1998). The amount of benzene, however, is on the order of 3 percent (ten times greater). Since the concentrations of benzene at this Site are lower than the Table 1 naphthalene threshold concentration, it is highly unlikely that naphthalene concentrations in soil at the Site, if any, exceed that threshold. Further, the Site is paved and accidental access to site soils is prevented. As an active gas station, any construction worker working at the Site or adjacent to the Site will be prepared for exposure in their normal daily work.

### Remediation Summary (Secondary Source Removal)

- Free Product: Noted in C-2 (up to 0.75 inches) in 1987.
- Soil Excavation: Impacted soil was removed from the Site.
- In-Situ Soil and Groundwater Remediation: No remediation activities were implemented.

**Supporting Site Data**

**Tank Information**

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active	Date
1	550	Used Oil	Removed	September 1999
2	Unknown	Unknown	Removed	July 2012 Geophysical Survey

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (3/9/2012)
A	1983	Open bottom	1.37
B	1983	Open bottom	3.60
C-1	1983	7-17	Abandoned 1991
C-2 <sup>a</sup>	1983	7-17	0.90
C-3	1983	7-17	1.42
C-4	1983	3-13	2.42
C-5	1996	3-18	2.45
C-6	1996	2.5-17.5	0.72
MW-6	1996	Unknown	Destroyed soon after installation due to artisan flow

<sup>a</sup>Note C-2 had 0.75 inches of free product last reported in 1987

**Petroleum Hydrocarbon Constituent Concentration**

Contaminant	Soil (mg/kg)		Water (ug/L)		WQOs (ug/L)
	Maximum 0-5 ft bgs <sup>a</sup>	Maximum 5-10 ft bgs <sup>a</sup>	Maximum <sup>b</sup>	Latest (3/9/2012)	
TPHg	5,800	1,600	56,000	3,900	NL
TPHd	NA	NA	5,900	5,700	NL
Benzene	0.23	0.16	2,500	33	1
Toluene	0.002	1.2	750	2	300
Ethylbenzene	7.1	12	800	3	700
Xylenes	7.9	37	6,000	5	1,750
MTBE	0.5	NA	210	41	5
TBA	0.14	NA	890	NA	1,200 <sup>c</sup>
Naphthalene	NA	NA	NA	NA	170 <sup>d</sup>

NA: Not Analyzed, Not Applicable or Data Not Available

NL: Not listed

mg/kg: milligrams per kilogram, parts per million

ug/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives, Region 2 Basin Plan

<sup>a</sup> According to Reports, soil

<sup>b</sup> According to Geotracker, wells

<sup>c</sup> CA Department of Health Services Notification Level

<sup>d</sup> CA Department of Health Services Action Level in drinking water

