

State Water Resources Control Board

REVIEW SUMMARY REPORT – CONCUR WITH ADDITIONAL WORK FIRST REVIEW – APRIL 2017

Case Information

Cleanup Fund (Fund) Claim No.: 5975	GeoTracker Global ID: T0600100315
Site Name: Chevron #9-0260	Address (Site): 21995 Foothill Blvd. Hayward, CA 94541
Responsible Party (RP): Chevron Projects Co. C/O Chevron Environmental Management Co. Attn: Joe Waterson	Address (RP): 6001 Bollinger Canyon Rd. Room C-2196 San Ramon, CA 94583
Fund Expenditures to Date: \$1,490,000	Number of Years Case Open: 32
Fund Budget Category: Claim Is Closed	

Agency Information

Agency Name: Alameda County Environmental Health (County)	Address: 1131 Harbor Bay Parkway, 2 nd Alameda, CA 94502-6577
Agency Caseworker: Mark Detterman	Case No.: RO0000383

Consultant History

Consultant: GHD Services, Inc. Signatory: Brandon S. Wilken, PG	Years: 2008 – 2016 Office Phone: (510) 420-3347
Consultant: Conestoga-Rovers & Associates Signatory: Nathan S. Lee, PG	Years: 2007 – 2015 Office Phone: (510) 420-0700
Consultant: Gettler-Ryan, Inc. Signatory: Robert A Lauritzen, PG	Years: 1995 – 2008 Office Phone: (925) 551-7555
Consultant: Cambria Environmental Signatory: Robert Foss, PG	Years: 2004-2006 Office Phone: (510) 420-0700
Consultant: Delta Environmental Signatory: Steve W. Meeks, PE	Years: 2002 Office Phone: (916) 638-8385
Consultant: Terra Vac Signatory: James A. Perkins, RG	Years: 1997 Office Phone: Not available
Consultant: Touchstone Developments Signatory: Jeff L. Monroe	Years: 1996 Office Phone: (707) 538-8818
Consultant: Geraghty & Miller Signatory: Not available	Years: 1992 Office Phone: Not available
Consultant: Weiss Associates Signatory: Richard B. Weiss, RG	Years: 1988 – 1992 Office Phone: (415) 465-1100

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=T0600100315

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: The Site is a former commercial petroleum fueling facility that is currently undeveloped. An unauthorized release was reported in 1985 following a subsurface investigation. Three 10,000-gallon gasoline USTs were removed from the Site in 1996. During the UST closure in 1996, approximately 1,000 gallons of groundwater with free product was removed from the excavation. A dual vacuum extraction (DVE) system operated between October 1997 and June 2002, and removed approximately 30,000 pounds of hydrocarbons from soil vapor. A dual phase extraction (DPE) system operated from July 2007 to December 2009 and removed approximately 6,400 pounds of hydrocarbons from soil vapor and approximately 1,293,003 gallons of impacted groundwater, which equated to approximately 364 pounds of hydrocarbons. A total of 36,765 pounds of hydrocarbons were recovered from active remediation. Active remediation has not been conducted at the Site since December 2009.

Since 1988, 23 groundwater monitoring wells have been installed and regularly monitored. According to groundwater data, water quality objectives have not been achieved for wells MW-4, MW-5, MW-12, MW-13, MW-16, MW-18, DVE-9, DVE-12, DVE-20, MW-19, and MW-20.

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 projected plume boundary. A surface water body (San Lorenzo Creek) is located less than 250 feet from the projected plume boundary. Three private water supply wells are located less than 250 feet from the projected plume boundary. The well at address 22407 Rio Vista Street is actively used for lawn irrigation, has recently been tested, and is not impacted. The well at 1108 Rex Road is not in use, has recently been tested, and is not impacted. The well at 1180 Rex Road is filled with debris, unusable, and is not able to be tested.

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 impacted 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 does not meet Policy Criterion for groundwater. The nearest water supply wells are less than 250 feet from the projected plume boundary. The contaminant plume that exceeds water quality objectives is approximately 680 feet in length. The nearest surface water body, San Lorenzo Creek, is located less than 250 feet from the projected plume boundary. The plume appears to attenuate at P-1, which is located adjacent to the San Lorenzo Creek. P-1 has occasionally had slight exceedances of the water quality objectives.
- Vapor Intrusion to Indoor Air: The Site does not contain existing buildings; however, the case meets Policy Criterion 2a by Scenario 4 with a bioattenuation zone for the Site. The maximum benzene and ethylbenzene concentrations in soil gas are less than 85,000 $\mu\text{g}/\text{m}^3$ and 1,100,000 $\mu\text{g}/\text{m}^3$ at a depth of five feet. These levels meet the Residential soil gas criteria where the soil gas sample locations are overlain by soil containing less than 100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH) where the oxygen soil vapor

April 2017

concentration is equal to or greater than 4 percent. For offsite properties within the projected plume boundary, the case meets Policy Criterion 2a by Scenario 3a. The maximum benzene concentration in groundwater is less than 100 micrograms per liter ($\mu\text{g/L}$). The minimum depth to groundwater is greater than 5 feet, overlain by soil containing less than 100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH).

- **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. One of 91 soil samples collected above 10 feet below ground surface (bgs) exceeded the concentrations in Table 1. Soil analytical results from MW-9 (offsite in Rex Road) at 10 feet bgs in 1988 contained benzene at 26 mg/kg . The sample result is not representative of the Site and is not considered a threat to human health and the environment.

Objections to Closure and Responses


The Regional Water Board objects to UST case closure in an email dated March 30, 2017 because:

- **Comment:** ACDEH is in agreement that Light Non Aqueous Phased Liquids (LNAPL) has not been observed on groundwater at the site for some time; however, groundwater concentrations indicate LNAPL concentrations in soil remain and the LNAPL continues to degrade groundwater quality substantially. Using the LNAPL criteria set forth in the LTCP, ACDEH presumes this would be classified as residual or immobile LNAPL. Regardless, groundwater concentrations indicate residual LNAPL is present.
Response: State Water Board staff disagree with the assessment since free product has not been observed in monitoring wells since 2007.
- **Comment:** While there are reductions in hydrocarbon contaminants in wells at the site and vicinity, other wells indicate clear increasing concentration trends (well MW-13 which increased from <0.50 micrograms per liter ($\mu\text{g/l}$) TPHg at system shut down, to 11,000 $\mu\text{g/l}$ most recently). An upward maximum concentration limit at this well has not been defined. Site data has additionally suggested channelized flow may be present beneath the site. Ultimately these concentrations have the potential to impact the downgradient private vicinity wells in the near future.
Response: State Water Board staff disagree that the plume is not stable or decreasing in areal extent. The majority of monitoring wells display a decreasing trend in groundwater concentrations and delineation wells do not indicate an increase in areal extent. Monitoring well MW-13 has fluctuated in concentrations in past years. Delineation to water quality objectives is not defined southeast of MW-13, but projected to be relatively near MW-13 since groundwater flow direction has historically been observed to be toward the southwest.
- **Comment:** The SWB recommended that the three private water supply wells be either abandoned or designated non-potable. In reviewing state regulations regarding wells, it is the understanding of ACDEH that a land owner has the right to extract groundwater and put it to beneficial use as long as it is not in a wasteful manner. As a consequence, ACDEH does not believe that our agency can require a landowner to abandon a water well used to irrigate landscaping, to eliminate a potential receptor for case closure. Conversely, it is the Responsible Party's role to clean up the site so that it is protective of human health on and off-site. Should you have other insight into private water rights, please let us know.
Response: State Water Board staff default to the County for local ordinances that may be applicable to non-potable well designation, should the water quality become affected in those wells.


April 2017

Recommendation

State Water Board staff recommend that the County add known private well locations by address or parcel in GeoTracker using the "other" well designation. Additionally, State Water Board staff recommend that the County direct the Responsible Party to comply with the County letter dated November 10, 2016 Plume Delineation and Feasibility Study / Corrective Action Plan Request.


4-5-17

Galvin Kauffman Date
Engineering Geologist
Technical Review Unit
(916) 322-9685


4/6/17

Pat G. Cullen, P.G. #4932 Date
Senior Engineering Geologist
Chief, Technical Review Unit
(916) 341-5684

