



Linda S. Adams
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State Water Resources Control Board

Division of Financial Assistance

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Arnold Schwarzenegger
Governor

EXHIBIT 10 UST Case Closure Summary

This Underground Storage Tank (UST) Case Closure Summary has been prepared in support of a recommendation by the Petroleum Underground Storage Tank Cleanup Fund (Fund) to the State Water Resources Control Board (State Water Board) for closure of the UST case at 3815 Florin Road in Sacramento, California (Site).

Agency Information

Agency Name: Sacramento County Environmental Management Department (SCEMD)	Address: 10590 Armstrong Avenue Suite A Mather, CA 95655
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Case Information

SCEMD Case No: E582	Global ID: T0606701011
Site Name: Worthington Chevrolet	Site Address: 3815 Florin Road Sacramento CA 95823
Responsible Party: Worthington Chevrolet, Inc Attn: Dottie Mathena	Number of Years Case Open: 12
USTCF Claim No.: 16639	USTCF Expenditures to Date: \$402,371

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active	Date
T-1	3,000	Gasoline	Removed	May 98
T-2	1,000	Waste Oil	Removed	May 98
T-3	450	Waste Oil	Removed	May 98

Release Information

- Source of Release: UST System
- Date of Release: 5/22/1998 (leak reported)
- Affected Media: Soil and Groundwater

Site Information

- GW Basin: Sacramento Valley
- Beneficial Uses: Municipal and Domestic Water Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), and Industrial Process Supply (PRO)
- Land Use Designation: Commercial
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are three Department of Public Health (DPH) water supply wells within ½ mile of the Site. The closest well is located 1,266 feet west from the Site.
- Minimum Groundwater Depth: 29.49 feet below ground surface (bgs) at monitoring well MW-2.
- Maximum Groundwater Depth: 41.21 feet bgs at monitoring well MW-7.
- Groundwater Flow Direction: Predominately to the easterly with an average gradient of 0.002 feet/foot (ft/ft).

California Environmental Protection Agency



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Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent Depth To Groundwater (feet bgs) (Feb 08)
MW-1	Jul 99	?-45	32.71
MW-2	Feb 00	?-45	31.23
MW-3	Feb 00	?-46	31.90
MW-4	Feb 00	?-45	32.83
MW-5	Apr 01	?-46	33.19
MW-6	Jul 02	?-45	32.96
MW-7	Jul 02	?-45	33.45
MW-8	Dec 02	?-44	32.20

NA: Not Available

Contaminant Concentration

Contaminant	Soil (mg/kg)		Water (ug/L)		WQOs (ug/L)
	Maximum	Latest	Maximum	Latest (Feb 08)	
TPHg	NA	NA	130,000	<50	5
Benzene	NA	NA	4,200	<0.5	0.15
Toluene	NA	NA	48,000	<0.5	42
Ethylbenzene	NA	NA	4,700	<0.5	29
Xylenes	NA	NA	26,000	<0.5	17
MTBE	NA	NA	1,600	2.7	5
TBA	NA	NA	28	<5	12
1,2-DCA	NA	NA	3.3	2.1	0.5
Lead	NA	NA	NA	NA	15

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: milligrams per kilogram, parts per million

ug/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives

Site Description

The Site is located at 3815 Florin Road in Sacramento, California, and is comprised of several buildings and large parking areas. The former UST was immediately south of the former maintenance building. The Site is bounded by businesses to the west, Southwind Drive to the north, Franklin Boulevard to the east and businesses to the south. The area surrounding the Site is primarily commercial.

Site History/Assessments

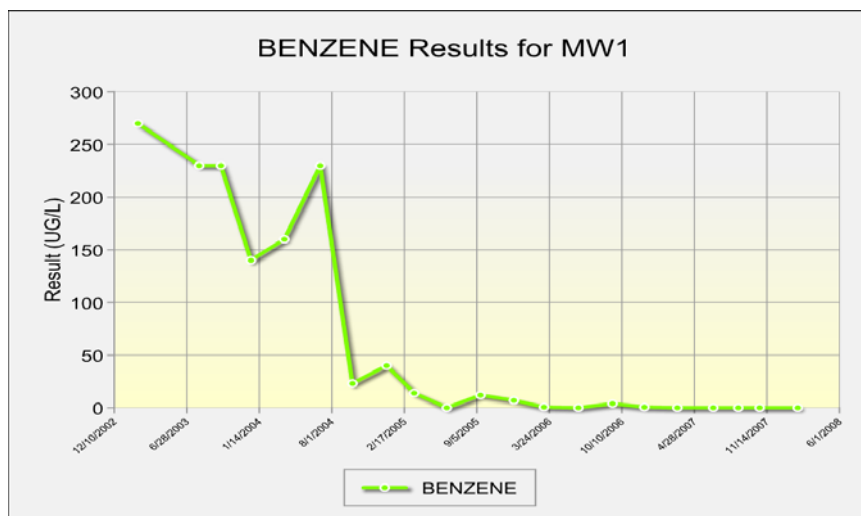
The Site is a car dealership, which formerly maintained one gasoline tank. In May 1998, fuel hydrocarbons were detected during the removal of the UST. To date, eight monitoring wells have been installed and monitored regularly; though no samples have been collected since February 2008. Soil vapor extraction was conducted from March 2006 through July 2006. A Site map showing the location of the former UST and monitoring wells is provided at the end of this case closure summary.

Remediation Summary

- Free Product: No free product was documented throughout the life of this case.
- Soil Excavation: An unknown volume of impacted soil was removed in 1998.
- In-Situ Soil Remediation: Soil vapor extraction was conducted from March 2006 through July 2006.
- Groundwater Remediation: Ozone sparging was conducted from December 2002 through June 2007.

General Site Conditions

- Geology and Hydrogeology: The Site is underlain by interbedded and intermixed sand, silt and clay. The depth to groundwater varies seasonally between 30 to 41 feet bgs and the groundwater gradient is easterly at approximately 0.002 feet/foot.
- Groundwater Trends: There are more than nine years of groundwater monitoring data for this Site. A benzene analytical trend for the most impacted groundwater monitoring well (MW-1), installed directly beneath the former UST, is shown below.



Water Quality Objectives (WQOs): The WQO for 1,2 DCA, 0.5 ug/l, will be met in approximately two years based on the historic rate of degradation. Water Quality Objectives have already been met for all other constituents of concern with the possible exception of TPHg and benzene. TPHg was not detected above the reporting limit of 50 ug/L. The WQO for TPHg of 5 ug/L will be met within a reasonable period of time, if it is not currently met. Similarly, benzene was not detected above the reporting limit of 0.5 ug/L. The WQO for benzene of 0.15 ug/L will be met within a reasonable period of time, if it is not currently met.

Sensitive Receptor Survey

There is one DPH water supply well within a 1,200 foot radius of the Site. There are no surface water receptors within 1,200 feet of the Site. Drinking water at and near the Site is currently supplied by the Fruitridge Vista Water Company.

Risk Evaluation

As a result of active remediation and natural attenuation, there is little residual petroleum hydrocarbon in soil at the Site that would pose a threat to groundwater resources, human health, or the environment. Constituents of concern are at or near WQO for all constituents of concern. The WQO for 1,2 DCA are expected to be achieved in two years. Since residual concentrations are low and the Site and public areas are paved with thick concrete, there is little potential for hydrocarbon vapors to migrate or pose a threat to human health or the environment. There is one DPH water supply well within 1,200 feet of the Site. No surface water receptors are present within 1,200 feet of the Site.

Closure

Does corrective action performed ensure the protection of human health, safety and the environment? Yes.

Is corrective action and UST case closure consistent with State Water Board Resolution 92-49? Yes.

Is achieving background water quality feasible? No.

To remove all traces of residual petroleum constituents at the Site would require significant effort and cost. Removal of all traces of residual petroleum hydrocarbon constituents that contribute to detectable concentrations in shallow groundwater can be accomplished, but would require excavation of additional soil as well as additional remediation of shallow groundwater. The soil excavation could also entail demolition of an existing building. If complete removal of detectable traces of petroleum constituents becomes the standard for UST corrective actions, the statewide technical and economic implications will be enormous. Because of the high costs involved and minimal benefit of attaining further reductions in concentrations of petroleum constituents benzene at this Site, and the fact that beneficial uses are not threatened, attaining background water quality at this Site is not feasible.

If achieving background water quality is not feasible:

Is the alternative cleanup level consistent with the maximum benefit to the people of the State? Yes.

It is impossible to determine the precise level of water quality that will be attained given the limited residual petroleum hydrocarbons that remain at the Site. In light of all the factors discussed above, and the fact that the residual petroleum constituents will not unreasonably affect present and anticipated beneficial uses of groundwater, a level of water quality will be attained that is consistent with the maximum benefit to the people of the state.

Will the alternative cleanup level unreasonably affect present and anticipated beneficial uses of water? No.

Impacted groundwater is not used as a source of drinking water or any other beneficial use currently. It is highly unlikely that the impacted groundwater will be used as a source of drinking water or any other beneficial use in the foreseeable future.

Will the alternative level of water quality exceed water quality prescribed in applicable Basin Plan? No.

The final step in determining whether cleanup to a level of water quality less stringent than background is appropriate for this Site requires a determination that the alternative level of water quality will not result in water quality less than that prescribed in the relevant basin plan. Pursuant to State Water Board Resolution 92-49, a Site may be closed if the basin plan requirements will be met within a reasonable time frame.

Have factors contained in Title 23 of the California Code of Regulations, Section 2550.4 been considered? Yes.

In approving an alternative level of water quality less stringent than background, the State Water Board considers the factors contained in California Code of Regulations, title 23, section 2550.4, subdivision (d). As discussed earlier, the adverse effect on shallow groundwater will be minimal and localized, and there will be no adverse effect on the groundwater contained in deeper aquifers, given the physical and chemical characteristics of petroleum constituents, the hydrogeological characteristics of the Site and surrounding land, and the quantity of the groundwater and direction of the groundwater flow. In addition, the potential for adverse effects on beneficial uses of groundwater is low, in light of the proximity of the groundwater supply wells, the current and potential future uses of groundwater in the area, the existing quality of groundwater, the potential for health risks caused by human exposure, the potential damage to wildlife, crops, vegetation, and physical structures, and the persistence and permanence of potential effects.

Finally, a level of water quality less stringent than background is unlikely to have any impact on surface water quality, in light of the volume and physical and chemical characteristics of petroleum constituents; the hydrogeological characteristics of the Site and surrounding land; the quantity and quality of groundwater and direction of groundwater flow, the patterns of precipitation in the region, and the proximity of residual petroleum to surface waters.

Has the requisite level of water quality been met? No.

The WQO for 1,2 DCA, 0.5 ug/l, will be met in approximately two years based on the historic rate of degradation. This is a reasonable period in which to meet the requisite level of water quality because the impacted groundwater is not currently being used as a source of drinking water and it is highly unlikely that impacted groundwater will be used as a source of drinking water in the future. Residential and commercial water users are currently connected to the municipal drinking water supply. Other designated beneficial uses of the impacted groundwater are not threatened and it is highly unlikely that they will be considering these factors in the context of the Site setting, Site conditions do not represent a substantial threat to human health and safety and the environment and case closure is appropriate. Water Quality Objectives have already been met for all other constituents of concern with the possible exception of TPHg and benzene. TPHg was not detected above the reporting limit of 50 ug/L. The WQO for TPHg of 5 ug/L will be met within a reasonable period of time, if it is not currently met. Similarly, benzene was not detected above the reporting limit of 0.5 ug/L. The WQO for benzene of 0.15 ug/L will be met within a reasonable period of time, if it is not currently met.

Objections to Closure and Response

The SCEMD objects to UST case closure for this case because they require that additional groundwater sampling be conducted.

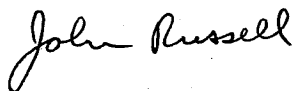
The Fund Manager does not believe that any potential residual petroleum hydrocarbons at this Site represent a significant risk to human health and safety, and the environment. As a result of active remediation and natural attenuation, there is little residual petroleum hydrocarbon in soil at the Site. Any residual petroleum hydrocarbons remaining in the groundwater beneath the Site, would be at very low concentrations and will continue to attenuate. In addition, there are no domestic or public water supply wells within 1,200 feet of the Site. Water in the vicinity of the Site is provided to water users by the Fruitridge Vista Water Company.

It is unlikely that any impacted groundwater will be used as a source of drinking water or other beneficial use in the foreseeable future. Based on available information, the residual petroleum hydrocarbons at the Site do not pose significant risks to human health, safety, and the environment, and the Fund Manager recommends that the case be closed.

The Fund is conducting public notification and the Sacramento County Environmental Management Department has the regulatory responsibility to supervise the abandonment of monitoring wells.

Summary and Conclusion

A leak was identified in 1998 during the removal of an underground storage tank. Since 1999, eight monitoring wells have been installed, soil vapor extraction was conducted for approximately four months and ozone sparging was conducted for four years. Water Quality Objectives at this Site have been achieved, with the exception of 1,2-DCA and the possible exception of benzene and TPHg. To date, \$402,371 in corrective action costs have been reimbursed by the Fund. The nearest water supply wells are more than 1,200 feet from the Site. Any impacted groundwater is not currently being used as a source of drinking water or other beneficial uses and water is provided to water users near the Site by the Fruitridge Vista Water Company. It is unlikely that any impacted groundwater will be used as a source of drinking water or other beneficial use in the foreseeable future. In addition, in the unlikely event that a water supply well is drilled in the future, that standard construction practices and requirements would prevent impacts from any residual petroleum contamination. Based on available information, the residual petroleum hydrocarbons at the Site do not pose significant risks to human health, safety, and the environment, and the Fund Manager recommends that the case be closed.



John Russell PG No. 8396

December 15, 2010

Date

