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State Water Resources Control Board

Division of Financial Assistance

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Arnold Schwarzenegger
Governor

EXHIBIT 7 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 8994 Greenback Lane in Orangevale, 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

Case No: C571	Global ID: T0606700469
Site Name: Orbit Gas & Mini Store	Site Address: 8994 Greenback Lane Orangevale, CA 95662
Responsible Party: Mr. Abbas Eghtesadi	Address: 8994 Greenback Lane Orangevale, CA 95662
USTCF Claim No.: 13794	Number of Years Case Open: 20
USTCF Expenditures to Date: \$730,336	

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
1	550	Waste Oil	Removed	1991
2	7,500	Gasoline	Removed	1/5/1999
3	7,500	Gasoline	Removed	1/5/1999
4	7,500	Gasoline	Removed	1/5/1999
5	Not Specified	Gasoline	Active	

Release Information

- Source of Release: UST System
- Date of Release: According to the July 6, 2009, Installation and Start-Up Report for Soil Vapor Extraction Remediation System prepared by Black Point Environmental, Inc. (BPE), several hundred gallons of waste oil were reportedly spilled during tank tightness testing of the waste oil UST in 1991. The tank and impacted soil were subsequently removed. In addition, a release of gasoline from the dispenser island north of the station building was reported in 1996. Notice of responsibility documents were issued by the Sacramento County Environmental Management LOP in May 1997.
- Affected Media: Soil and Groundwater

Site Information

- GW Basin: Sacramento Valley
- GW 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 no listed Department of Public Health (DPH) supply wells within ½ mile of the Site. Water is supplied to properties in the vicinity of the Site by Orangevale Water Company (OWC). In 2009, OWC staff indicated to BPE that a municipal water well was being installed approximately 2,310 feet north of the site and that the next closest municipal water well is located greater than one mile from the Site.
- Minimum Groundwater Depth: 45.99 feet below ground surface (bgs) at monitoring well MW-7
- Maximum Groundwater Depth: 53.27 feet bgs at monitoring well MW-3
- Groundwater Flow Direction: Predominately to the southwest with a gradient ranging from 0.0009 to 0.013 feet/foot (ft/ft).
- Soil Types: The Site is underlain by interbedded and intermixed sand, silt, and clay.
- Maximum Depth Sampled: 60 feet bgs

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent Depth To Groundwater (feet bgs) (9/15/2010)
MW-1	6/26/1995	35-55	Destroyed 4/1997
MW-2	6/27/1995	35-55	Destroyed 4/1997
MW-3	6/27/1995	40-60	53.17
VE-1 (MW-4)	2/5/2001	17-37	--
MW-5	2/6/2001	35-55	50.84
MW-6	2/6/2001	35-55	51.91
MW-7	2/5/2001	40-60	50.81
MW-8	4/9/2009	50-60	52.44

DTW Depth to Water
 -- Not Gauged

Petroleum Hydrocarbon Constituent Concentration

Contaminant	Soil (mg/kg)		Water (ug/L)		WQOs (ug/L)
	Maximum	Latest (6/2006)	Maximum	Latest ¹ (9/15/2010)	
TPHg	2,200	1,600	16,000	<50	5
Benzene	21	0.68	2,200	<0.5	0.15
Toluene	200	40	2,800	<0.5	42
Ethylbenzene	60	29	330	<0.5	29
Total Xylenes	320	190	1,500	<0.5	17
MTBE	64	3.2	10,000	<0.5	5
TBA	9.7	NA	1,900	<5	12
1,2-DCA	NA	NA	640	<0.5	0.4

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
 1 MW-5 and MW-6 were the only wells sampled on September 15, 2010.

Site Description

The Site is located at 8994 Greenback Lane in Orangevale, California and is an active gasoline service station. The Site is bounded by Main Recycling to the west and south, Greenback Lane to the north, and Pecan Avenue to the east. The surrounding land use is commercial and residential.

Site History/Assessments

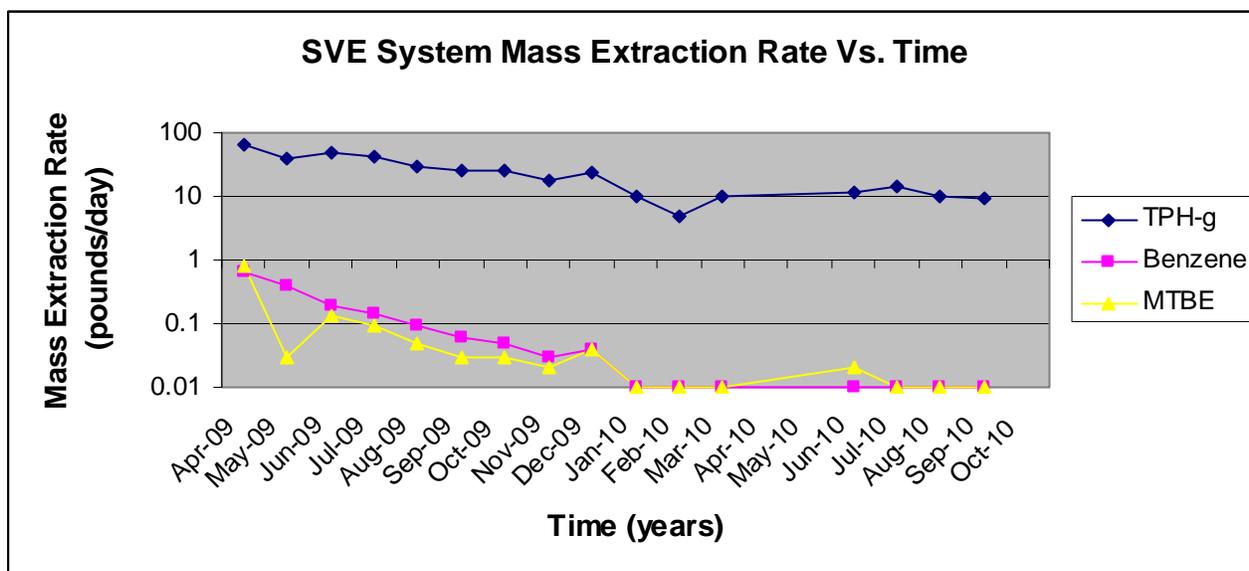
The Site has been an active gasoline service station since at least the 1960s. According to the July 6, 2009, Installation and Start-Up Report for Soil Vapor Extraction (SVE) Remediation System prepared by BPE, several hundred gallons of waste oil were reportedly spilled in 1991 during tightness testing of the waste oil UST. The tank and impacted soil were subsequently removed.

In June 1995, three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed in the vicinity of the former waste oil UST. A gasoline release from the dispenser island north of the station building was reported in 1996. Three gasoline USTs and associated dispenser islands and product piping were removed and replaced in 1999. The USTs were reportedly replaced by a single UST. Between 900 and 1,000 cubic yards of impacted soil were excavated and transported to Forward Landfill for disposal. Three additional groundwater monitoring wells (MW-5, MW-6, and MW-7) and one vapor extraction well (VE-1) were installed in February 2001. SVE activities conducted between October 2002 and June 2003 removed an estimated 6,000 pounds of gasoline range hydrocarbons. Extraction wells EW-1 and EW-2 were installed in June 2006 and dual phase extraction (DPE) pilot testing was conducted in June and July 2006. Groundwater monitoring well MW-8 was installed in April 2009.

Five of the seven groundwater monitoring wells have been monitored on a regular basis. A sensitive receptor survey was conducted in April 2009. A Site map showing the location of the current USTs, monitoring wells and groundwater level contours is provided at the end of this case closure summary.

Remediation Summary

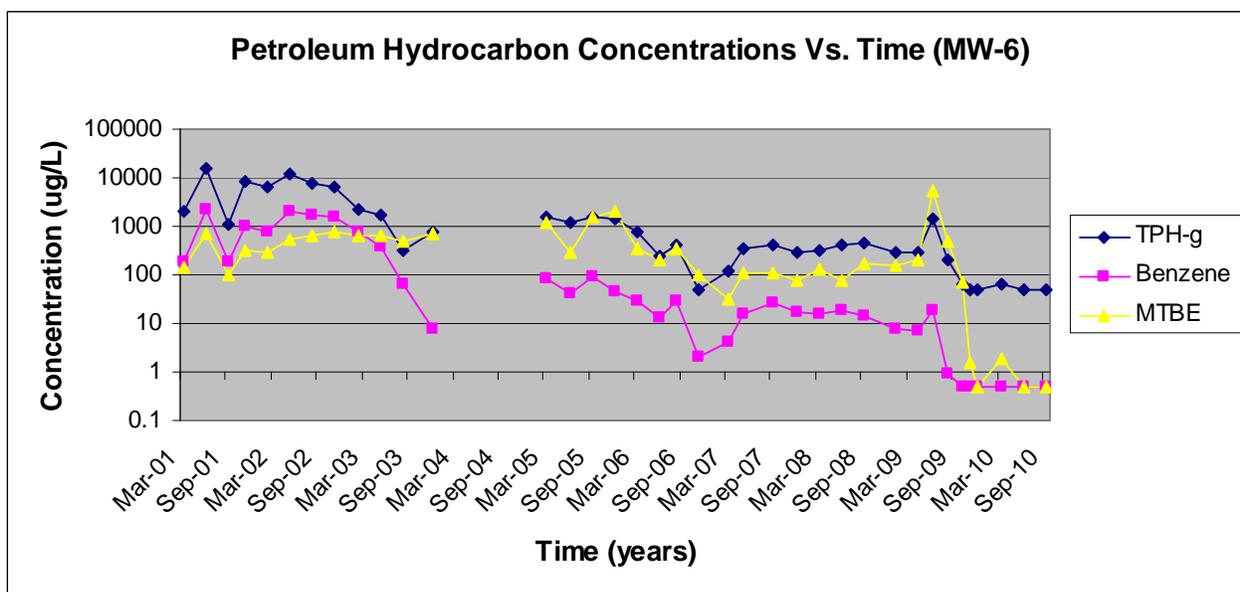
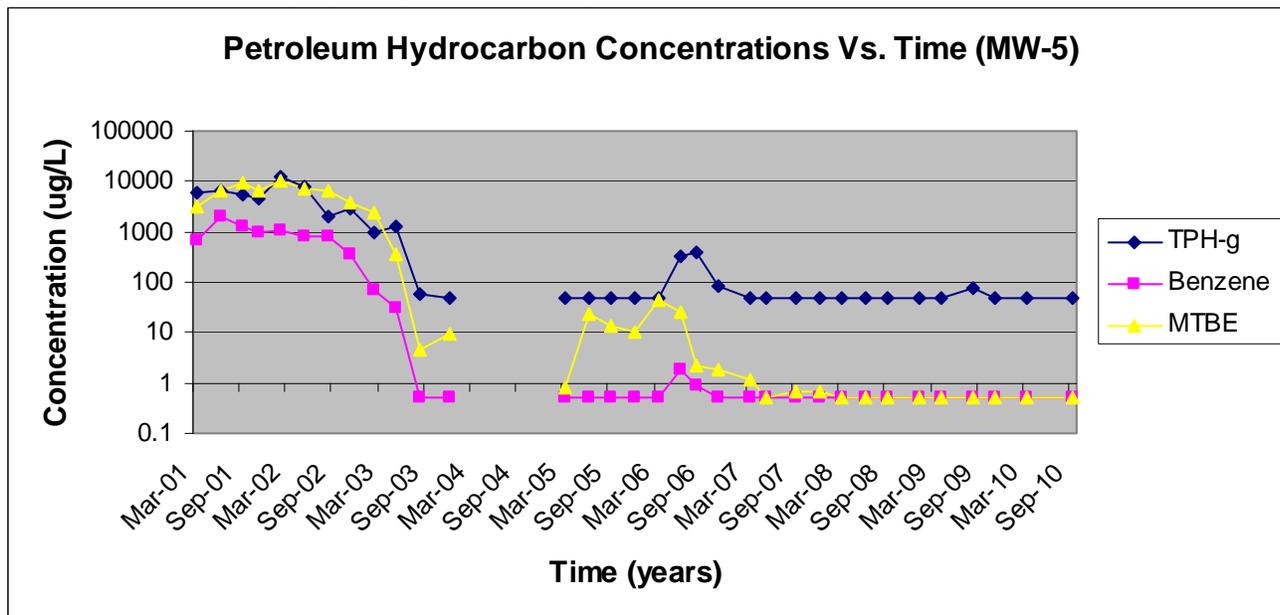
- Free Product: No free product was documented throughout the life of this case.
- Soil Excavation: Between 900 and 1,000 cubic yards of impacted soil were excavated and transported to Forward Landfill for disposal.
- Groundwater Remediation: DPE was conducted from June 28, 2006 through July 10, 2006.
- In-Situ Soil Remediation: SVE was conducted from October 2002 through June 2003, April 28, 2009 through March 29, 2010, and June 4, 2010 to Present. The system influent concentrations on September 23, 2010, were 160 ppmv TPHg, 0.13 ppmv Benzene, 4.5 ppmv Toluene, 1.7 ppmv Ethylbenzene, 14 ppmv Total Xylenes, and 0.13 ppmv MTBE. Based on the September 2010 data, BPE calculated the following removal rates: 9.3 pounds of TPHg per day, 0.01 pounds of Benzene per day, and 0.01 pounds of MTBE per day.



General Site Conditions

- Geology and Hydrogeology: The Site is underlain by interbedded and intermixed gravel, sand, silt, and clay. The depth to groundwater has been declining since 2002 with a high of 45.20 feet bgs recorded in February 2002 and a low of 53.27 feet bgs recorded in March 2010. Groundwater flow direction is consistently to the southwest with a gradient ranging from 0.0009 to 0.013 ft/ft. The closest surface water is the Lake Natoma, located more than a mile east of the Site.
- Groundwater Trends: There are nearly 10 years of groundwater monitoring data for this Site. The following graphs show analytical data for two of the originally most impacted groundwater monitoring wells (MW-5 and MW-6).

Note: The laboratory reporting limit (RL) was plotted for concentrations not detected above the RL.



- Water Quality Objectives (WQOs): WQOs have already been met with the possible exception of TPHg, Benzene, and 1,2-DCA. None of these analytes were detected above the laboratory RLs of 50 ug/L, 0.5 ug/L, and 0.5 ug/L, respectively. The WQO's for each of these constituents will be met in a reasonable period of time, if it is not currently met.

Sensitive Receptor Survey

A Sensitive Receptor Survey (SRS) was conducted in 2009 by BPE. A records search at the Department of Water Resources and an on-the-ground survey in the area did not identify any water supply wells or surface water receptors within a 2,000 foot radius of the Site. Drinking

water at and near the Site is currently supplied by the Orangevale Water Company. No surface water bodies were identified within 2,000 feet of the Site.

Risk Evaluation

Two soil vapor samples were collected from well boring EW-2 in June 2006, at depths of approximately 7 and 15 feet bgs. Although petroleum hydrocarbons were detected in the 15 foot sample, no analytes were detected above laboratory RLs in the shallow sample collected at 7 feet bgs. These results show that there is minimal risk of soil vapor exposure at this 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 relocation of existing utilities, demolition of existing buildings, temporary closure of existing businesses and road closures. 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 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? Yes, with the possible exception of TPHg, benzene, and 1,2-DCA. TPHg was not detected above the reporting limit of 50 ug/L. The WQO for TPHg 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 5 ug/L. The WQO for benzene will be met within a reasonable period of time, if it is not currently met. Finally, 1,2-DCA was not detected above the reporting limit of 0.5 ug/L. The WQO for 1,2-DCA 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 because they want a soil vapor survey and human health risk assessment performed.

The Fund Manager does not believe that any residual petroleum hydrocarbons at this Site represent a significant risk to human health and safety, and the environment. As a result of DPE and SVE, there is little residual petroleum hydrocarbon in soil at the Site. Any residual petroleum hydrocarbons, if present in the groundwater, would be at very low concentrations and would continue to attenuate. In addition, there are no domestic or public water supply wells within 2,000 feet of the Site. Water in the vicinity of the Site is provided to water users by Orangevale Water Company.

The Fund is conducting public notification and the SCEMD has the regulatory responsibility to supervise the abandonment of monitoring wells.

Summary and Conclusion

An unauthorized release occurred in 1991 during tank tightness testing of the waste oil UST. A release from the dispenser island located north of the station building was reported in 1996. Seven groundwater monitoring wells were installed between 1995 and 2009. In June 2006, soil vapor samples were collected from well boring EW-2, at depths of approximately 7 and 15 feet bgs. Petroleum hydrocarbons were not detected above laboratory reporting limits in the shallow sample collected at 7 feet bgs. Dual phase extraction was conducted from June 28, 2006 through July 10, 2006. SVE was conducted from October 2002 through June 2003, April 28, 2009 through March 29, 2010, and June 4, 2010 to present. According to groundwater data, water quality objectives have been achieved or contaminants are below laboratory reporting limits. To date, \$730,336 in corrective action costs have been reimbursed by the Fund. A sensitive receptor survey was conducted in 2009. A records search at the Department of Water Resources and an on-the-ground survey in the area did not identify any water supply wells or surface water receptors within a 2,000 foot radius of 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 Orangevale 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, 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

John Russell PG No. 8396

December 15, 2010

Date

