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# State Water Resources Control Board

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## Division of Water Quality

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Arnold Schwarzenegger  
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## EXHIBIT 1

### UST Case Closure Summary American Auto Wreckers; Mr. Freeberg & Mr. Feroz (Petitioner) 3744 Depot Road, Hayward (site)

#### Summary:

The release from the subject site was discovered during the removal of underground storage tanks (USTs) in 1992. Alameda County Environmental Health Department (Alameda County) staff denied the Petitioner's request for closure because concentrations of benzene and methyl tert butyl ether (MTBE) remain above the San Francisco Bay Water Board's Basin Plan Water Quality Objectives (WQOs) and contend that additional remedial excavation is needed.

Residual petroleum hydrocarbons and fuel additives are limited to shallow soil and groundwater in the immediate vicinity of the site. Petroleum hydrocarbon concentrations in groundwater have remained low to below laboratory reporting limits for over ten years confirming that the remaining residual petroleum mass is limited. The processes of dispersion, dilution, and degradation will continue, allowing the plume to naturally attenuate. Trend lines show that water quality objectives will be attained in several decades.

The site is the location of an automobile salvage operation. An irrigation water supply well (MW-3) is located within Petitioner's property approximately 25 feet northwest of the former waste oil UST and has a depth of approximately 30 feet. The irrigation well is used for watering outdoor plants. Historically, only MTBE concentrations have been reported above laboratory reporting limits in groundwater samples from the irrigation water supply well (MW-3). During the most recent (November 2008) groundwater sampling of the irrigation water supply well (MW-3), minor MTBE concentrations (2.1 ppb) that are below the WQO (5 ppb) were reported. Based on facts in the record and the hydrologic and geologic conditions at the site, the limited residual petroleum hydrocarbons and fuel additives that remain in shallow soil and groundwater pose a low risk to public health, safety and the environment. For these reasons, case closure is appropriate.

#### Background:

This UST Case Closure Summary has been prepared in support to a petition to the State Water Resources Control Board (State Water Board) for closure of the UST case at 3744 Depot Road, Hayward, California. All record owners of fee title for this site as

well as adjacent property owners and other interested parties have been notified of the recommendation for closure and were given the opportunity to provide comments.

Petitioner's site is an automobile salvage operation and is located at 3744 Depot Road, Hayward, in western Alameda County. Land use is industrial with similar 'scrap yards' at contiguous properties to the east and west. Businesses in the area are provided water and sewer service from the local utility district; however, this parcel has no water or sewer service. Drinking water at the site is provided through bottled water and a small amount of irrigation water is obtained from an onsite well.

Alameda County denied Petitioner's request for UST case closure asserting that additional remedial excavation of the near source soils will be to the maximum benefit to the people of the state. Petitioner contends that site conditions do not threaten public health and safety and that the burden of additional corrective actions outweighs the corresponding benefit to public health, safety or the environment.

#### **Petitioner information**

Site Name: American Auto Wreckers	Address: 3744 Depot Road, Hayward, CA 94545
Global ID: T0600101922	Petition Date: March 30, 2009
USTCUF Claim No: None	USTCUF Expenditures: No Record of Expenditures

#### **Agency Information**

Agency Name: Alameda County Environmental Health Department	Address: 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
Agency Case No: RO0000161	Number of Years Case Has Been Open: 18 years

#### **Release Information:**

- USTs: Two locations, southern (500-gallon waste oil) and northern (1,000-gallon gasoline), removed in 1992
- Discovery Date: May 11, 1992
- Affected Media: Soil and shallow groundwater
- Free Product: Reported in grab groundwater sample near former 500-gallon waste oil UST
- Corrective Actions:
  - January 1992 – USTs removed
  - September 1995 – Soil and groundwater assessment
  - February 1997 – Soil and groundwater assessment
  - August 2000 – Phase I environmental site assessment
  - December 2008 – Soil and groundwater assessment

#### **Site Description/Conditions:**

- Groundwater Basin: Santa Clara Valley
- Beneficial Uses: MUN, AGR, IND, PRO
- Land Use: Industrial

- Nearest Well: Petitioner's irrigation water supply well (MW-3), approximately 25 feet northwest of the former waste oil UST; Municipal well approximately 1 mile northeast of site
- Depth to Groundwater: ~6 feet
- Flow Direction: Westerly to southwesterly
- Geology: Fine-grained alluvial fan deposits underlain by silty clay (Bay Mud)
- Hydrology: Confined to semi-confined and has varied historically in the monitor wells from 5 to 7 feet bgs. First water was encountered during drilling at approximately 12 feet bgs, static level is about 6 feet bgs
- Estimate of Remaining Mass: Low levels of petroleum constituents likely remain contained to soil and groundwater in and immediately surrounding the former two UST tank excavation locations
- Time to Meet Water WQOs: Several decades
- Potential Receptors: Petitioner's irrigation water supply well

**Site History:**

In 1992, two USTs were removed from two locations, southern (500-gallon waste oil) and northern (1,000-gallon gasoline). Analytical results from soil and groundwater samples indicated an impact by fuel hydrocarbons. The tank excavations were left open for approximately two years before being backfilled, apparently with the aerated soils from the excavations. Over the course of several investigations, 5 monitoring wells and 11 soil borings have been drilled and sampled. (Table 1 presents a summary of soil samples and Table 2 presents a summary of groundwater samples.)

**Contaminant Concentrations:**

**Table 1: August 29, 1995 UST Removal Soil Samples**

Sample	TPHd (ppm)	TRPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)
GAS-NW@7	ND	ND	ND	ND	0.014	ND	NA
GAS-NW@7	ND	ND	0.012	0.014	0.089	1	NA
DISP@2	ND	ND	ND	ND	ND	0.073	NA
WO-SW@7	9.4	1100	0.0091	ND	ND	ND	NA
WO-NW@9.5	56	3300	0.063	0.0093	0.171	0.055	NA

**Table 2: Historic Groundwater Assessment Sampling**

Sample	Date	TPHd (ppb)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW-1	11/26/96	ND	ND	ND	ND	ND	ND	NA
MW-1	4/29/97	NA	ND	ND	ND	ND	ND	NA
MW-1	3/30/99	NA	NA	ND	ND	ND	ND	NA
MW-1	2/4/04	NA	<50	<0.5	<0.5	<0.5	<0.5	3.4
MW-1	11/21/08	<50	<50	<0.5	<0.5	<0.5	<0.5	2.0
MW-2	11/26/96	ND	<50	ND	ND	ND	ND	NA
MW-2	4/29/97	NA	<50	ND	ND	ND	ND	NA
MW-2	3/30/99	NA	<50	ND	ND	ND	ND	NA
MW-2	2/4/04	67	<50	<0.5	<0.5	<0.5	<0.5	84
MW-2	11/21/08	<50	<50	<0.5	<0.5	<0.5	<0.5	60

MW-3	11/26/96	ND	<50	ND	<0.5	<0.5	<0.5	NA
MW-3	2/4/04	NA	<50	<0.5	<0.5	<0.5	<0.5	8.5
MW-3	11/21/08	<50	<50	<0.5	<0.5	<0.5	<0.5	2.1
MW-4	11/21/08	<50	<50	1.8	<0.5	<0.5	<0.5	33
MW-5	11/21/08	<50	<50	<0.5	<0.5	<0.5	<0.5	20
WQOs	--	56	5	1	42	29	17	5

ND = not detected

NA = not analyzed

### Sensitive Receptor/ Risk Evaluation/Conceptual Site Model:

**Source Removal:** The primary source of the release was removed during UST system removal activities that occurred in 1992. Residual petroleum hydrocarbons in soil were further reduced by leaving the tank excavations open for approximately two years before being backfilled with the aerated soils from the excavations. The data show that petroleum constituents remain in the soil that was backfilled into the two UST excavations and in the undisturbed soil immediately surrounding the two former excavations.

**Plume Definition and Stability:** Because the residual contamination is sorbed to the fine grained soil beneath the site, contaminants are limited to the soil and groundwater near the former two UST tank excavation locations. Historically, soil and grab groundwater samples obtained immediately surrounding the two excavations were reported with moderate to high concentrations of TPHg, TPHd, TPHmo, BTEX, and MTBE; whereas, in November 2008 site monitor wells were reported with only minor benzene concentrations (1.8 ppb) in well MW-4 and low MTBE concentrations (2 ppb to 60 ppb).<sup>1</sup> The lack of contaminants reported in site monitor wells located no more than 50 feet from the former tank excavations demonstrate that the sorbed contamination will remain stable and contained. The petroleum releases are limited to the soil and groundwater in and immediately surrounding the former two UST tank excavation locations.

**Current and Anticipated Beneficial Uses:** Land use in the immediate vicinity of the site is industrial and comprised of 'scrap yards' and similar usage. The City of Hayward water treatment plant is contiguous with the southern boundary of the site and the Hayward salt water evaporators are located less than one-quarter mile to the west.

The groundwater encountered at approximately 12 feet below ground surface has been shown to be protected from the UST system petroleum release. Groundwater at the site is present in semi-confined conditions and groundwater samples from all monitor wells have had shown little to no petroleum constituents<sup>1</sup> for over 10 years. Additionally, the site is mostly covered with concrete and asphalt which controls the

<sup>1</sup> The MTBE concentrations are likely from multiple point sources, i.e. the hundreds of automobiles stored on Petitioner's and adjacent properties, because MTBE has not been detected in any of the soil samples.

quantity of surface water, i.e. precipitation, that is available for infiltration. The residual petroleum release sorbed to soil will continue to attenuate over time and reduce the remaining residual mass.

**Objections to Closure:**

In a response to the petition dated June 29, 2009, Alameda County staff indicated that the site does not meet the "Low Risk" criteria listed in the San Francisco Bay Regional Water Quality Control Board's January 5, 1996 Memorandum "*Supplemental Instructions to State Water Board December 8, 1995 Interim Guidance on Required Cleanup at Low-Risk Fuel Sites.*"

Response: Residual contamination is localized, unlikely to migrate beyond the current spatial extent and does not pose a threat to human health or safety.

Shallow groundwater is not used as a source of drinking water nor is it likely to be used in the timeframe required to meet WQOs. An irrigation water supply well (MW-3) is located within Petitioner's property approximately 25 feet northwest of the former waste oil UST. The well is about 30 feet deep and used for watering outdoor plants. Historically, only MTBE concentrations have been reported above laboratory reporting limits in groundwater samples from the irrigation water supply well (MW-3). During the most recent (November 2008) groundwater sampling of the irrigation water supply well (MW-3), minor MTBE concentrations (2.1 ppb) that are below the WQO (5 ppb) were reported. If the Petitioner's irrigation well is destroyed, shallow groundwater is not likely to be beneficially used in the foreseeable future.

**Closure:**

**Does corrective action performed to date 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. As previously noted, the site is mostly covered with concrete and asphalt. Approximately 1,100 cubic yards of soil would have to be removed to eliminate all traces of petroleum contamination in the soil. If complete removal of detectable traces of petroleum constituents becomes the standard for UST corrective actions, however, the statewide technical and economic implications will be enormous. For example, disposal of soils from comparable areas of excavation throughout the state would greatly impact already limited landfill space. In light of the precedent that would be set by requiring additional excavation 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, but 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 and highly unlikely to be used in the timeframe required to meet WQOs. An irrigation water supply well (MW-3) is located within Petitioner's property approximately 25 feet northwest of the former waste oil UST. The well is about 30 feet deep. The irrigation well is used for watering outdoor plants. If the Petitioner's irrigation well is destroyed, shallow groundwater is not likely to be beneficially used in the foreseeable future. If any future water supply well were installed, DWR well construction standards would require a 50-foot minimum sanitary seal and thereby prevent the flow of shallow groundwater from impacting the beneficial uses of the underlying groundwater.

**Will the alternative level of water quality exceed water quality prescribed in applicable Basin Plans? 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 SWRCB 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 has also considered 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.

### Summary and Conclusion

Based on the hydrology, geology, and other factors at and in the vicinity of the site, shallow affected groundwater does not represent a threat to public health, safety, or the environment. The dissolved petroleum hydrocarbon plume is decreasing and concentrations of petroleum hydrocarbons are decreasing; residual petroleum hydrocarbons dissolved in groundwater and absorbed to shallow soil are localized and limited in extent and will continue to naturally degrade and attenuate. Shallow groundwater is not used as a source of drinking water or likely to be used in the foreseeable future. An irrigation water supply well (MW-3) is located within Petitioner's property approximately 25 feet northwest of the former waste oil UST and has a depth of approximately 30 feet. The irrigation well is used for watering outdoor plants. Historically, only MTBE concentrations have been reported above laboratory reporting limits in groundwater samples from the irrigation water supply well (MW-3). During the most recent (November 2008) groundwater sampling of the irrigation water supply well (MW-3), minor MTBE concentrations (2.1 ppb) that are below the WQO (5 ppb) were reported. Based on facts in the record and the hydrologic and geologic conditions at the site, the limited residual petroleum hydrocarbons and fuel additives that remain in shallow soil and groundwater pose a low risk to public health, safety and the environment. For these reasons, case closure is appropriate.

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