



**Linda S. Adams**  
Secretary for  
Environmental Protection

# State Water Resources Control Board

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## Division of Financial Assistance

1001 I Street • Sacramento, California 95814  
P.O. Box 944212 • Sacramento, California • 94244-2120  
(800) 813-FUND (3863) • FAX (916) 341-5806 • [www.waterboards.ca.gov/water\\_issues/programs/ustcf/](http://www.waterboards.ca.gov/water_issues/programs/ustcf/)



**Arnold Schwarzenegger**  
Governor

## **NOTIFICATION OF OPPORTUNITY FOR PUBLIC COMMENT**

UNDERGROUND STORAGE TANK (UST) CLEANUP FUND (FUND),  
MEETING NOTIFICATION FOR CASE CLOSURE RECOMMENDATION, PURSUANT TO  
HEALTH AND SAFETY CODE SECTION 25299.39.2: CLAIM NUMBER: 13224;  
SITE ADDRESS: NORTHGATE LIQUOR & FOOD, 3016 NORTHGATE BLVD,  
SACRAMENTO, CA 95833

By this letter, as Fund Manager, I am informing you of the Fund's intent to recommend closure of your UST site cleanup case to the State Water Resources Control Board (State Water Board) at its October 19, 2010, Board meeting.

In the interim, any reasonable, necessary, and eligible costs that you incur and submit in a properly documented reimbursement request will continue to be reimbursed by the Fund, as monies are available.

### Meeting Notice

The State Water Board is planning to consider closing your UST case at its meeting that will be held on October 19, 2010, commencing at 9:00 a.m. in the Coastal Hearing Room, Second Floor of the Cal/EPA Building, 1001 I Street, Sacramento, California. Under separate cover at a later date, you will receive an agenda for this meeting.

### Legal Authority

Health & Safety Code (H&SC) Section 25299.39.2(a) 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, the H&SC section 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 a UST case that is under the jurisdiction of a Regional Water Quality Control Board (Regional Water Board) or a local agency participating in the State Water Board's local oversight program.

Discussion

Having obtained your approval, and pursuant to H&SC Section 25299.39.2(a), to recommend closure of your UST case to the State Water Board, enclosed is a copy of the UST Case Closure Summary for your UST case. The case closure summary contains information about your 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 is also being provided to your environmental consultant and the local agency that has been overseeing corrective action at your site. Other interested persons may obtain a copy of the Case Closure Summary by contacting Ms. Dennise Walker, at (916) 341-5789.

Comments

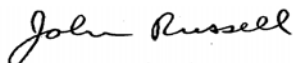
At the meeting, interested persons will be allowed to comment orally on the case closure recommendation (including the case closure summary), subject to the following time limits. The UST Cleanup Fund claimant and the local agency overseeing corrective action at the site will be allowed five minutes for oral comment, with additional time for questions by the State Water Board members. Other interested persons will be allotted a lesser amount of time to address the State Water Board. At the meeting, the State Water Board may grant UST case closure, deny case closure, or may continue consideration until a later meeting.

Written comments on the case closure summary must be received by the State Water Board by 12:00 p.m. on September 17, 2010. Please provide the following information in the subject line: **October 19, 2010 Board Meeting, UST Case Closure, and applicable site address and UST Cleanup Fund claim number.** 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)

If you have any questions regarding this matter, please contact Mr. Robert Trommer at (916) 341-5684.

Sincerely,



John Russell, P.G., Fund Manager  
Underground Storage Tank Cleanup Fund

Enclosure

cc: Kurt Balasek  
BSK Associates  
3140 Gold Camp Drive, Suite 160  
Rancho Cordova, CA 95670

Val Siebal  
Sacramento County Environmental Management Department  
Environmental Compliance Division  
10590 Armstrong Avenue, Suite A  
Mather, CA 95655-4153

Barry Marcus  
Sacramento County Environmental Management Department  
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Jack Bellan  
Sacramento County Environmental Management Department  
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Brian Newman  
Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

City of Sacramento  
Department of Utilities  
1395 35<sup>th</sup> Avenue  
Sacramento, CA 95822

General Baptist Church of Gardena Park  
514 Wisconsin Avenue  
Sacramento, CA 95833

Evans Community Property Trust  
48 Encina Drive  
Carmel Valley, CA 93924

Sablan Family Trust  
529 Wisconsin Avenue  
Sacramento, CA 95833-1324

Steven Ray Moss  
P.O. Box 276  
Doyle, CA 96109

cc: Haritha P & Ramasahayam S Reddy

Mohannad & Tahira Afzal

Jose M Ramirez

Carol L Douglas

Claudia E Braun

Jose H & Esther Ruiz



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## 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 3016 Northgate Blvd in Sacramento (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

County Case No: D508	Global ID: T0606701005
Site Name: Northgate Liquor & Food	Site Address: 3016 Northgate Blvd Sacramento, CA 95833
Responsible Party: Navtej Riar	Address: 3016 Northgate Blvd Sacramento, CA 95833
USTCF Claim No.: 13224	USTCF Expenditures to Date: \$ 356,999
	Number of Years Open: 12

### Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
1	10,000	Gasoline	Removed	Feb 98
2	5,000	Gasoline	Removed	Feb 98
3	15,000	Gasoline	Active	

### Release Information

- Source of Release: UST System
- Date of Release: Discovered during UST removal in February 1998
- Affected Media: Soil and Groundwater

### Site Information

- GW Basin: Sacramento Valley Basin
- Beneficial Uses: Municipal and Domestic Water Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND) and Industrial Process Supply (PRO)
- Land Use Designation: The Site is zoned commercial with surrounding residential.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are four active and one inactive water supply wells within ½ mile of the Site. The closest well is located 1,190 feet northwest of the Site.
- Minimum Groundwater Depth: 19.91 feet below ground surface (bgs) at monitoring well MW-104
- Maximum Groundwater Depth: 39.60 feet bgs at monitoring well MW-102

- Groundwater Flow Direction: Predominately to the north/northeast with an average gradient of 0.0026 feet/foot
- Soil Types: The Site is underlain by interbedded and intermixed sand, silt and clay.

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent Depth to Groundwater (feet bgs) (3/22/2010)
MW-101	May 1999	20-35	NA
MW-102	Nov 1999	25-40	37.56
MW-103	Nov 1999	25-40	37.16
MW-104	Oct 2000	24.5-39.5	37.04
MW-105	Oct 2000	24.5-39.5	37.50
MW-106	Apr 2003	20.5-44.5	38.17
MW-107	Apr 2003	22.5-42.5	38.06
MW-108	Apr 2003	20.5-44.5	37.32

NA: Not Available

**Petroleum Hydrocarbon Constituent Concentration**

Contaminant	Soil (mg/kg)		Water (ug/L)		WQOs (ug/L)
	Maximum	Latest	Maximum	Latest (3/2010)	
TPHg	270	NA	56,000	<50	5
Benzene	0.69	NA	5,200	<0.3	0.15
Toluene	5.2	NA	5,500	<0.3	42
Ethylbenzene	3.2	NA	1,100	<0.3	29
Xylenes	22	NA	4,900	<0.3	17
MTBE	53	NA	11,000	6.1	5
TBA	59	NA	16,000	<50	12
1,2-DCA	<0.005-<0.020	NA	210	4.1	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

**Site Description**

The Site is located at the southeast corner of Northgate Boulevard and Wisconsin Avenue in Sacramento, California. The Site is comprised of a convenience store, two gasoline dispenser islands and two underground fuel storage tanks. The Site is bounded by Northgate Boulevard to the west, Wisconsin Avenue to the north, residential property to the east and commercial properties to the south.

**Site History/Assessments**

The Site has been an operating gasoline station since 1972. During the removal and replacement of the two USTs in February 1998, soil samples collected from beneath the southern end of both tanks indicated petroleum hydrocarbons and MTBE contamination. Subsequent to tank removal, one new split UST was installed adjacent to the southern end of the former UST pit. Two new dispenser islands were installed above the former UST pit.

Site investigation between 1999 and 2003 included advancement of two soil borings and installation of eight groundwater monitoring wells and three vapor extraction wells. Site investigation revealed that the majority of the soil contamination was found in areas near the southeastern corner of the former tank pit and the northeastern portion of the fuel dispenser islands. The vertical extent of the soil contamination, based on soil data collected throughout the investigation, was found between 6 and 25 feet bgs.

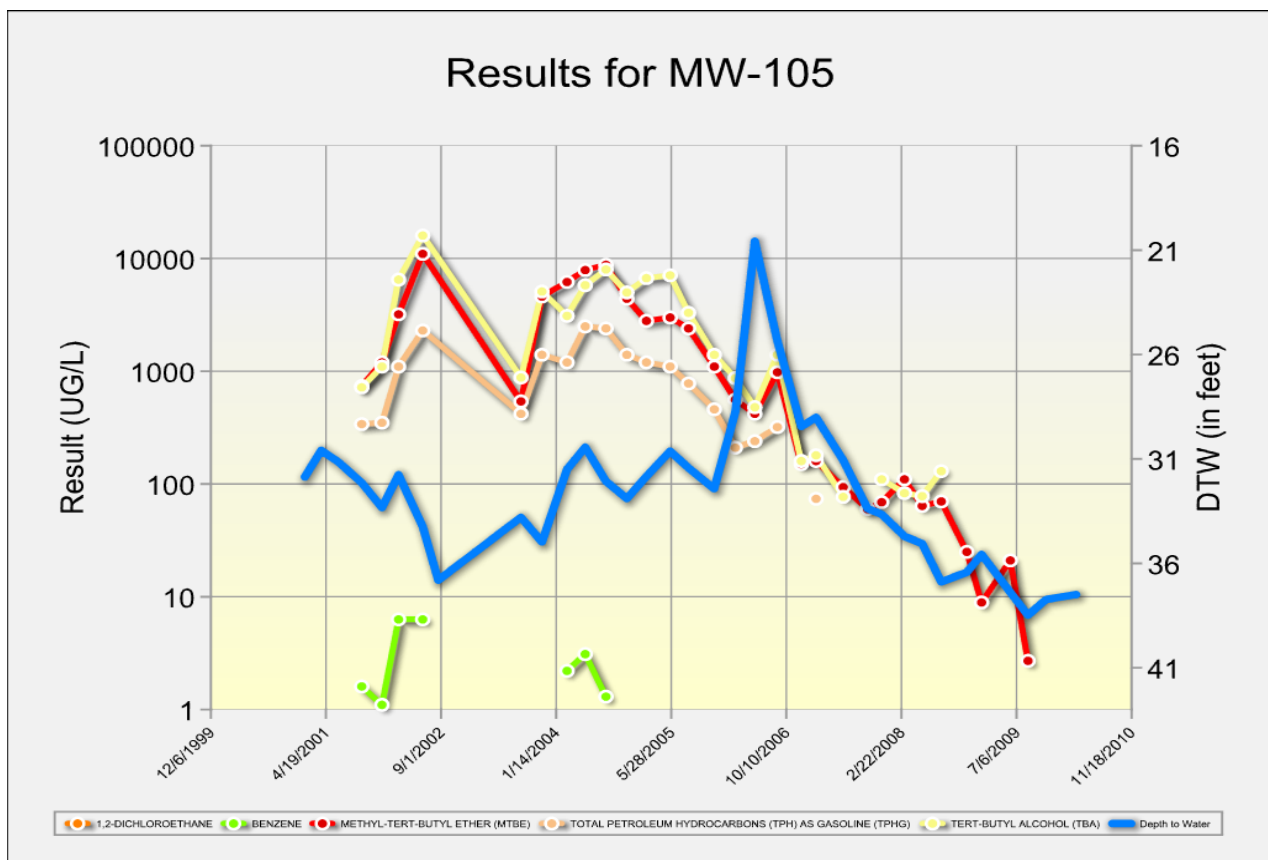
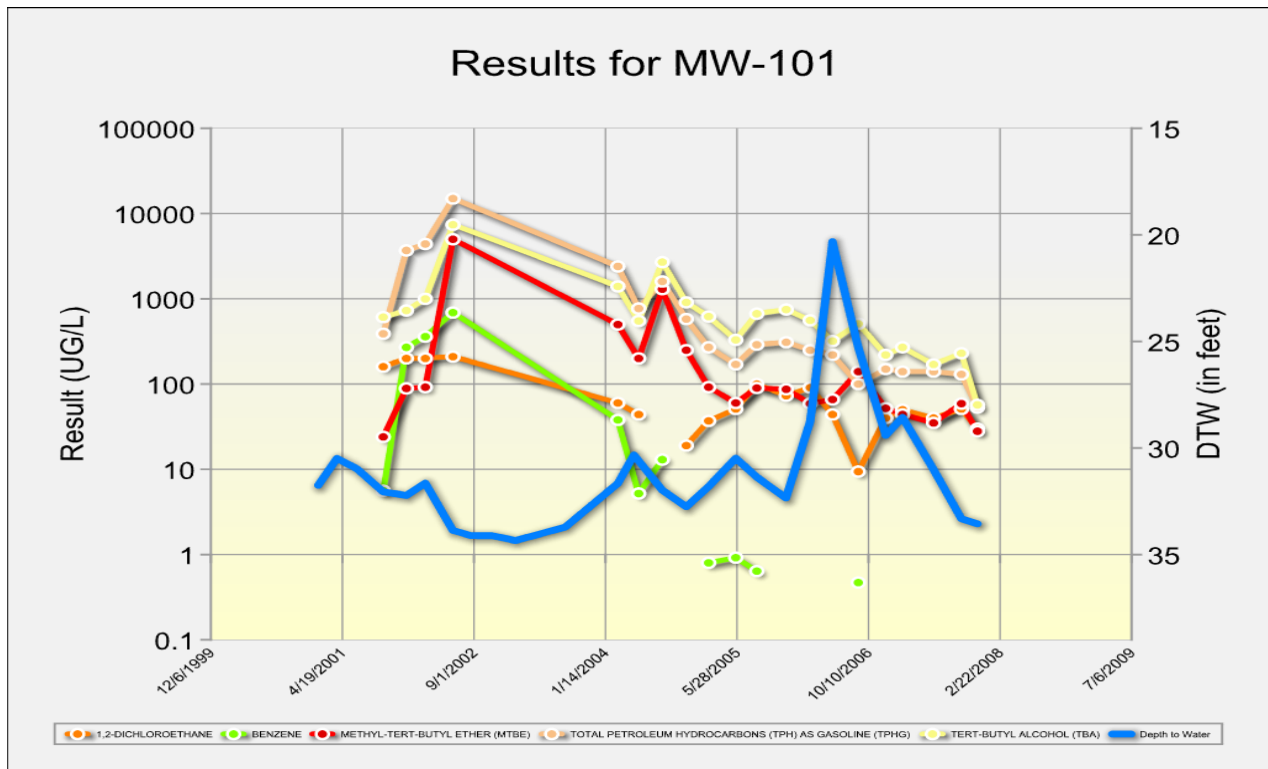
Data from quarterly groundwater monitoring conducted since June 1999 has shown that groundwater in the vicinity of MW-101 and MW-105 was the most impacted by petroleum hydrocarbons. Maximum petroleum hydrocarbons concentrations were detected in MW-105.

### **Remediation Summary**

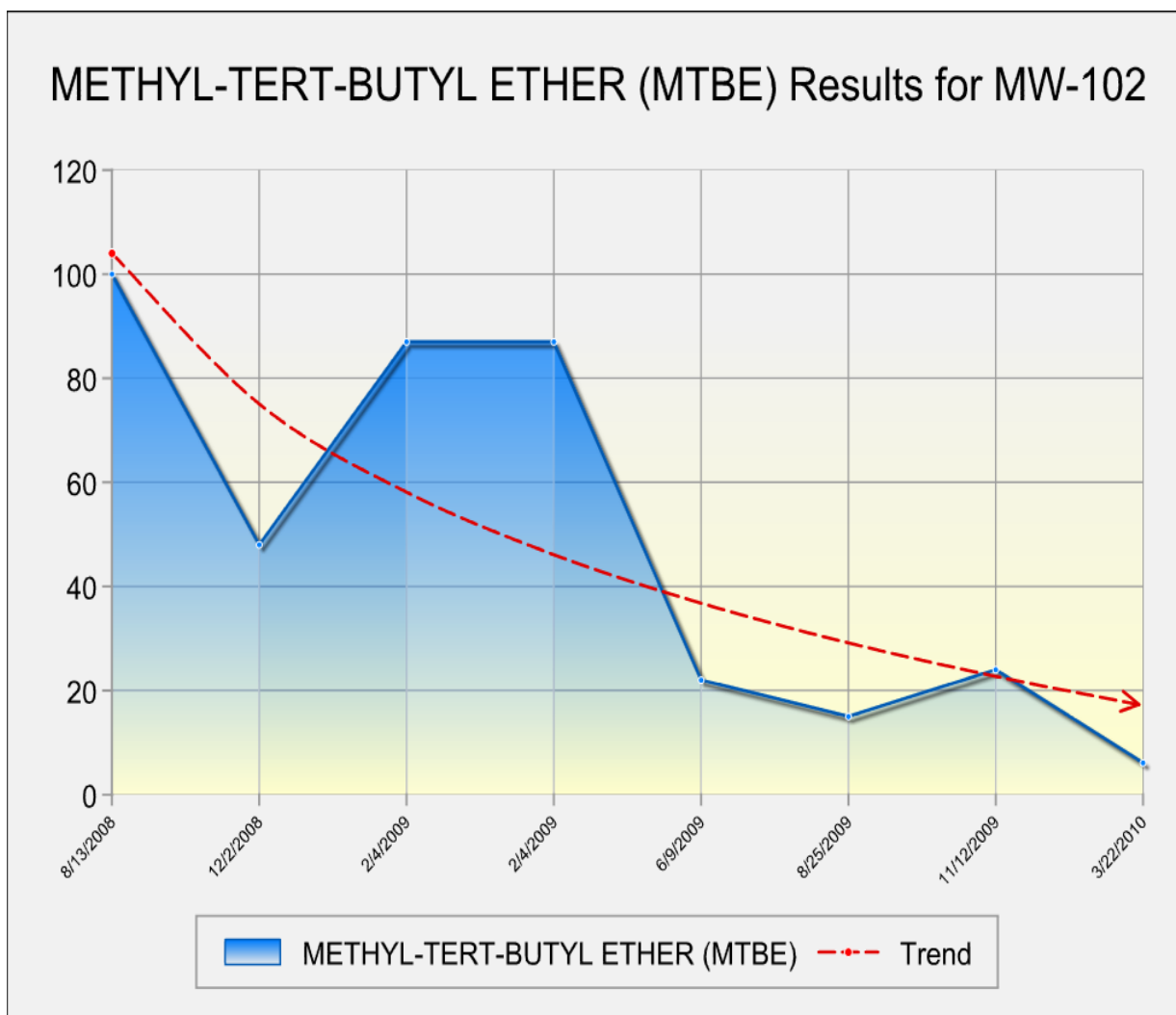
- Free product removal: no free product was documented throughout the life of this case.
- Soil excavation: no information was found in the file.
- In-situ soil remediation: a soil vapor extraction (sve) system operated from August 2004 through July 2006. The system was restarted in february 2007 and operated for approximately a week. Approximately 7,400 pounds of petroleum hydrocarbons and 530 pounds of MTBE have reportedly been removed by the system.
- Groundwater remediation: No groundwater remediation has been conducted at the Site.

### **General Site Conditions**

- Hydrogeology: Groundwater beneath the Site occurs at approximately 30 feet bgs and flows in a predominately northeast direction toward a groundwater depression at the south end of McClellan Air Force Base.
- Geology: Soils beneath the Site generally consist of sandy silt with some clayey silt to a depth of 35 feet bgs underlain by silty to slightly silty sand to 45 feet bgs (the maximum depth explored).
- Groundwater Trends: There are more than 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-101 and MW-105). In addition, a plot of MTBE concentrations in MW-102 is included. Wells MW-102 and MW-104 exceeded the WQO for MTBE and 1,2-DCA respectively during the March 2010 groundwater monitoring event.







- Time to Meet Water Quality Objectives: It is estimated that the remaining MTBE and 1,2-DCA in groundwater will reach WQOs in 5 to 20 years.

#### **Sensitive Receptor Survey**

The Site consultant's review of Well Driller's Log files at the Department of Water Resources and a field reconnaissance identified four public supply wells and six domestic wells within 2,000 feet of the Site. The closest domestic well is 600 feet upgradient of the Site. Two downgradient domestic wells are located 900 feet N-NW and N-NE of the Site. The closest public supply well is 1190 feet northwest of the Site. Four of the supply wells have screen intervals ranging between 112 and 352 feet bgs. The rest of the wells have open hole construction rather than perforated casing with conductor casing set in clay at depths between 45 and 75 feet bgs.

Water in the vicinity of the Site is provided to water users by the City of Sacramento.

### **Risk Evaluation**

Based on the samples collected during Site assessment, petroleum hydrocarbon contamination in the soil was located between 6 and 25 feet bgs. SVE performed from August 2004 to July 2006 removed 7,400 pounds of petroleum hydrocarbons and 530 pounds of MTBE contamination from the vadose zone. Vapor sampling at the start of SVE and following rebound testing have shown that the majority of the soil contamination had been removed and the system had reached the point of diminishing return. Since the Site and public areas are paved, any residual soil contamination has little potential to migrate to the shallow groundwater or pose a significant threat to human health and the environment.

### **Closure**

**Will 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, 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 MTBE and 1,2-DCA 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 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.**

Although water quality objectives for MTBE and 1,2-DCA have not been met, the approximate time period in which the requisite level of water quality will be met for both constituents is 5 to 20 years. 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. Benzene and TBA were not detected above the reporting limit of 0.3 ug/L and 50 ug/L, respectively. The water quality objectives for benzene and TBA are 0.15 ug/L and 12 ug/L, respectively, and will be met within a reasonable period of time even if they are not currently met. 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.

**Objections to Closure and Response**

The County does not agree with the 5-year review recommendation for case closure and requires that a Human Health Risk Assessment be performed.

The Fund Manager disagrees that a Human Health Risk Assessment is necessary. Based on the corrective actions conducted at the Site, which included SVE, the limited residual petroleum hydrocarbons in the soil that may still exist do not pose significant risks to health and safety.

Results of vapor samples collected at the start of soil vapor extraction, rebound testing, and restart of the system show that the majority of the soil contamination has been removed and the system reached the point of diminishing results. Furthermore, the former UST location is currently covered with asphalt and pavement. Consequently, there is currently no completed pathway for dermal contact with any residual soil contamination.

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

### **Summary and Conclusion**

The Site has been an operating gasoline service station and a convenience store since 1972. Two USTs were removed and replaced in February 1998. Since that time, Site assessments include advancement of two soil borings and installation of eight groundwater monitoring wells and three vapor extraction wells. SVE was conducted from August 2004 through July 2006. To date, \$356,999 in corrective action costs have been reimbursed by the Fund. Based on groundwater monitoring data collected for more than ten years, it is estimated that the water quality objectives for MTBE and 1,2-DCA will be met in five to 20 years. Although MTBE and 1,2-DCA exceed WQOs in wells MW-102 and MW-104, the impacted groundwater is not currently being used as a source of drinking water or other beneficial uses. It is highly unlikely that the impacted groundwater will be used as a source of drinking water. Properties in the area are currently connected to the municipal drinking water supply. Based on available information, the residual petroleum hydrocarbons at the Site do not pose significant risks to public health, safety, and the environment, and the Fund Manager recommends that the case be closed.

*John Russell*

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John Russell PG No. 8396

August 2, 2010

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Date

