



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

**AUG 15 2012**

August 2012

Dr. Yue Rong  
California Regional Water Quality Board  
Los Angeles Region  
320 W. 4<sup>th</sup> St, Ste 200  
Los Angeles, CA 90013

### **FIVE-YEAR REVIEW SUMMARY REPORT FOR CLAIM NUMBER 4494, SITE ADDRESS: 1408 WEST ROSECRANS AVENUE, GARDENA, CA:**

The UST Cleanup Fund (Fund) has completed our 4<sup>TH</sup> review of Regional Board case number I-1-10600. The 5-Year Review Summary Report for this case is enclosed for your information and comment. Please note that the Fund's recommendations are based on review of information contained in the Fund's case files, data currently in the Geotracker database and any other sources of information that were readily available to Fund staff at the time the review was conducted. Consequently, they may not reflect historical information that has not been uploaded to the Geotracker database or available in the Fund's case files and any data that has been recently submitted to your office. During our review we solicited input from your Regional Board caseworker to obtain the current status of corrective action at this site as well as information on any outstanding issues. If additional information was provided by the caseworker, it was considered by Fund staff and incorporated into our recommendations if applicable.

The Fund requests that the Regional Board staff notify the Fund within 45 days from the date of this letter as to whether you agree or disagree with our recommendations for this case. If you agree with our recommendation, we request that you provide the Fund with an estimated timeframe to either implement the recommendations for additional corrective action or for closing this case. If you do not agree with our recommendations, we request that you provide the Fund with a summary of the reasons for disagreeing and/or impediments to implementing the recommendations for additional corrective action or closing this case. Responses to the Fund may be provided by e-mail, letter or a copy of correspondence to the RP, if the correspondence addresses all the information requested by the Fund. Please direct your response to:

Kirk Larson  
Underground Storage Tank Cleanup Fund  
State Water Resources Control Board  
P.O. Box 944212  
Sacramento, CA 94244-2120  
KTLarson@waterboards.ca.gov

CHARLES R. HOPPIN, CHAIRMAN | THOMAS HOWARD, EXECUTIVE DIRECTOR

Fund staff will be sending copies of all completed 5-Year Review Summary Reports to claimants 45 days from the date of this letter unless the Regional Board notifies the Fund that they wish to discuss this case prior to transmittal to the claimant. If you or your staff has any questions or concerns on specific reports that you would like to discuss with the Fund prior to transmittal of the report to the claimant, please contact us within this period. The UST Cleanup Fund reviewer name and telephone number are included on the last page of the summary Report.

Sincerely,



Robert Trommer  
Senior Engineering Geologist  
Chief, Technical Review Unit  
Underground Storage Tank Cleanup Fund

Enclosure

cc: Arman Toumari, RWQCB, Los Angeles

Kyle Larson  
Underground Storage Tank Cleanup Fund  
State Water Resources Control Board  
P.O. Box 24212  
Sacramento, CA 95824-2412  
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USTCF 5-YEAR REVIEW SUMMARY  
4<sup>TH</sup> REVIEW – AUGUST 2012

Agency Information

Agency Name: Los Angeles Regional Water Quality Control Board, Region 4 (Board)	Address: 320 West 4 <sup>th</sup> Street, Suite 200, Los Angeles, CA 90013
Agency Caseworker: Arman Toumari	Case No.: I-10600

Case Information

USTCF Claim No.: 4494	Global ID: T0603703633
Site Name: Shell 204-2928-0504	Site Address: 1408 West Rosecrans Avenue, Gardena, CA 90249
Responsible Party (RP): Shell Oil Products	Address: 20945 South Wilmington Avenue, Carson, CA 97494
USTCF Expenditures to Date: \$640,752	Number of Years Case Open: 22

Summary

A leak was identified in July 1989. Since 1988, 17 monitoring wells have been installed and monitored regularly. According to data available in GeoTracker, there is no California Department of Public Health (CDPH) regulated Public Supply Wells within ½ mile of the site. Water users in the vicinity of the site rely on the Golden State Water Company. To date, \$640,752 in corrective action costs have been reimbursed by the Fund. Attachments 1 and 2 provide the technical data to support our recommendation.

Recommendation

By 8 June 2011 letter, the Board directed the Responsible Party to commence active remediation and continue regular monitoring; the Fund concurs.

	3/2/2012		8/2/12
Kirk Larson, P.G. Engineering Geologist Technical Review Unit (916) 341-5663	Date	Robert Trommer, C.H.G. Senior Engineering Geologist Chief, Technical Review Unit (916) 341-5684	Date

## ATTACHMENT 1

### SUMMARY OF BASIC SITE INFORMATION (Conceptual Site Model)

#### Site Location/ History

- The Site is located at 1408 West Rosecrans Avenue in Gardena, CA and is an active retail gasoline station.
- The Site is bounded by businesses to the west and south, West Rosecrans Avenue to the north and South Normandie Avenue to the east. The surrounding land use is mixed residential and commercial.
- To date, 27 monitoring wells (currently 17 wells) have been installed and monitored regularly.
- A Site map showing the location of the current USTs, monitoring wells and groundwater level contours is provided at the end of this five year summary.

#### Pollutant Source

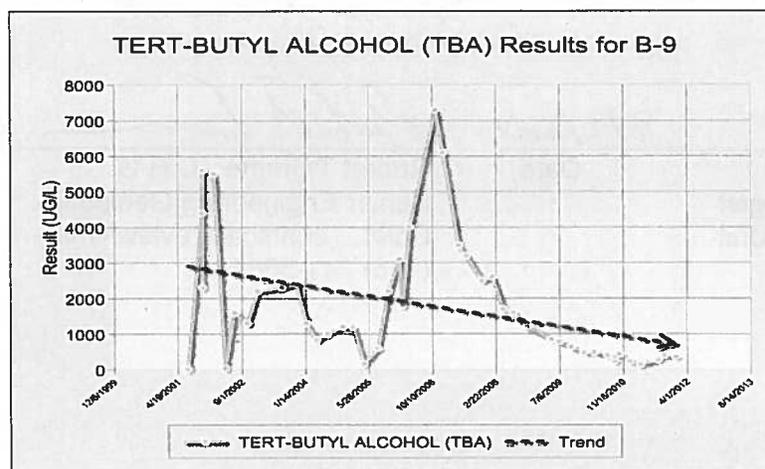
- Nature of Contaminants of Concern: Petroleum hydrocarbons only
- Source, Date reported, and Status of Release: UST system, 28 July 1989, USTs removed
- Free Phase Hydrocarbons: Yes

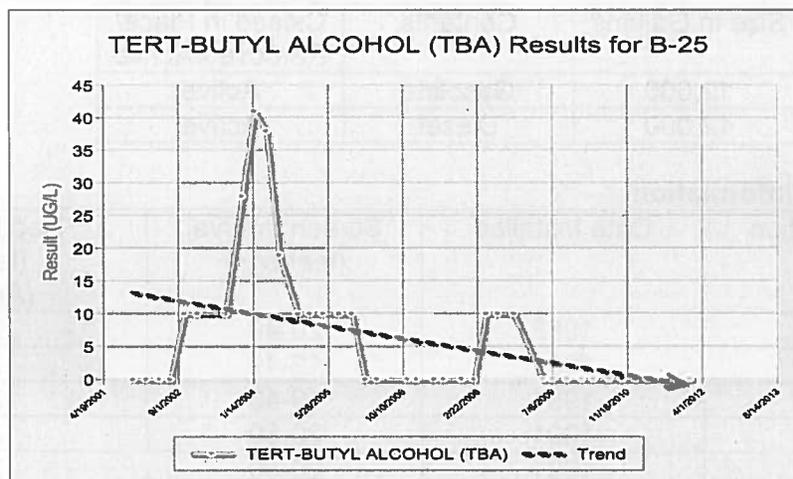
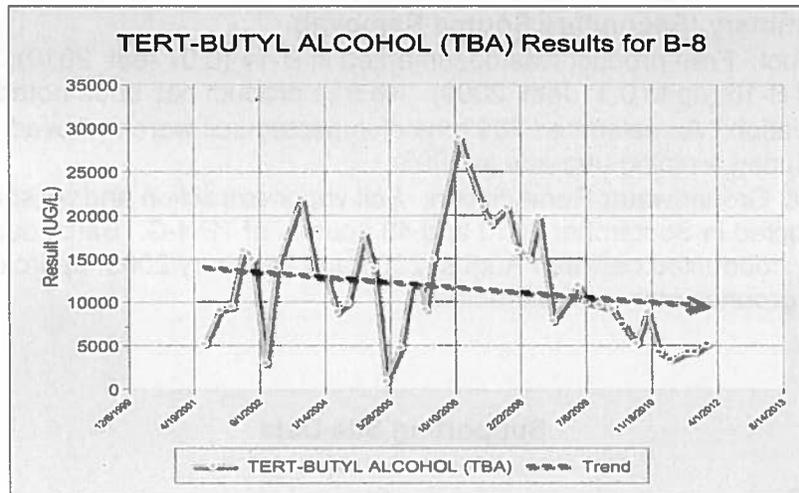
#### Geology/ Hydrogeology

- Stratigraphy: The Site is underlain by interbedded and intermixed sand, silt and clay.
- Maximum Sample Depth: 40 feet below ground surface (bgs)
- Minimum Groundwater Depth: 21.90 feet bgs at monitoring well B-19
- Maximum Groundwater Depth: 27.70 feet bgs at monitoring well B-25
- Current Average Depth to Groundwater: 24 feet bgs
- Saturated Zones(s) Studied: 22 to 50 bgs
- Groundwater Flow Direction: Southwest at approximately 0.003 feet/foot

#### Groundwater Trends:

There are more than 24 years of groundwater monitoring data for this Site. TBA trends are shown below, source area (B-9), near down gradient (B-8) and far down gradient (B-25)





### Receptors

- GW Basin: Coastal Plain of Los Angeles – West Coast
- Beneficial Uses: None specified, deeper aquifer(s) used for drinking water supply
- Land Use Designation: None specified, aerial photo show site is commercial surrounded by mixed commercial and residential
- Public Water System: Golden State Water Company
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no CDPH regulated water supply wells within ½ mile of the site. No domestic public supply wells have been identified.
- Distance to Nearest Surface Water: A branch of Dominguez Creek is approximately 3,886 feet northwest of the site.

### Risk Criteria

- Estimate of Hydrocarbon Mass in Soil: None reported
- Soil/Groundwater Tested for MTBE: Yes, see table below
- Plume Length, Extent and Mobility: 200 feet, defined, decreasing in concentration
- Contaminated Zone(s) Used for Drinking Water: No
- Oxygen Concentrations in Soil Vapor: Average is 0.36 mg/L in January 2012
- Risk from Residual Petroleum Hydrocarbons: This is an active station entirely covered with asphalt/ concrete.

**Remediation Summary (Secondary Source Removal)**

- Free Product: Free product was documented in B-14 (0.07 feet, 2010), B-15 (0.06 feet, 2010) and B-16 (up to 0.11 feet, 2009). No free product has been noted since 2010.
- Soil Excavation: An estimated 209 tons of impacted soil were removed and disposed offsite in during a piping upgrade in 2003
- In-Situ Soil/ Groundwater Remediation: Soil vapor extraction and air sparging pilot test was conducted in September 2010 and 48 pounds of TPH-G. Batch dual phase extraction, conducted between August 2003 and February 2003, approximately 25,172 gallons of groundwater were extracted.

**Supporting Site Data**

**Tank Information**

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active
1-3	12,000	Gasoline	Active
4	12,000	Diesel	Active

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (Apr 2012)
B-2	1988	20-40	24.49
B-8	1991	19-49	24.97
B-9	1991	19-49	24.83
B-14	1991	20-50	23.85
B-15	1991	20-50	24.03
B-16	1994	18-38	23.28*
B-17	1994	20-40	24.86
B-18	1994	17-37	24.05
B-19	1998	15-35	22.76
B-20	1998	15-35	23.43
B-21	1998	15-35	23.91
B-22	2001	15-35	25.58
B-23	2001	15-40	24.05
B-24	2001	14-34	22.84
B-25	2001	16-36	26.62
B-26	2001	18-43	24.32
B-27	2001	18-43	24.82

\*Free product noted in site well

**Petroleum Hydrocarbon Constituent Concentration**

Contaminant	Soil (mg/kg)		Water (µg/L)		WQOs (µg/L)
	Maximum	Latest	Maximum <sup>a</sup>	Latest (Jan 2012)	
TPHg	NA	NA	5,800,000	40,000	NA
TPHd	NA	NA	190,000	11,000	NA
Benzene	NA	NA	8,700	1,900	1
Toluene	NA	NA	540	10	150
Ethylbenzene	NA	NA	4,700	1,200	700
Xylenes	NA	NA	9,900	1,100	1,750
MTBE	NA	NA	5,800	43	5
TBA	NA	NA	76,000	9,200	1,200 <sup>b</sup>

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  
<sup>a</sup> According to GeoTracker, wells  
<sup>b</sup> California Department of Public Health Response Level

**ATTACHMENT 2  
 Historic Recommendations**

May 2009, the Fund is concerned with the delayed implementation of active remediation at the site. In October 2007, the Regional Board approved a workplan for oxygen well installation and oxygen injection pilot testing. An addendum to the workplan has also been submitted in March 2008. It does not appear that the scope of work proposed in both the original and addendum to the workplan has been implemented. It is imperative that corrective actions proceed in a timely manner to prevent further plume migration which could result in unnecessary costs.

UPDATED, June 2010, the Fund supports the Regional Board's directive for further corrective actions per their letter dated June 24, 2010. In their letter, the Regional Board approved the Remedial Action Plan dated April 14, 2010, prepared by Delta. As noted in the Fund's preliminary review, it is imperative that corrective actions proceed in a timely manner to prevent further plume migration which could result in unnecessary costs. It has been over 20 years since the unauthorized release was first reported. To date, no active remediation has been implemented other than the semi-monthly vacuum truck events.

UPDATED, August 2011, by 8 June 2011 letter, the Regional Board directed the Responsible Party to conduct active remediation. The Fund concurs with the Regional Board's directive.

