



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

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## State Water Resources Control Board

September 17, 2012

Mr. Clint Snyder  
UST Program Manager  
Regional Water Quality Control Board  
Redding Branch Office  
415 Knollcrest Drive, Suite 100  
Redding, CA 96002

### **PRELIMINARY 5-YEAR REVIEW SUMMARY REPORT FOR CLAIM NUMBER 13623; PAYLESS GAS & FOOD MART**

The UST Cleanup Fund (Fund) has completed our review of the RWQCB Redding Office Case No. 450240. The Preliminary 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.

The Fund requests that the Regional Water 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:

Mark Owens, P.E.  
Underground Storage Tank Cleanup Fund  
State Water Resources Control Board  
P.O. Box 944212  
Sacramento, CA 94244-2120  
([mowens@waterboards.ca.gov](mailto:mowens@waterboards.ca.gov))

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*California Environmental Protection Agency*



Recycled Paper

Fund staff will be sending copies of the completed 5-Year Review Summary Report to applicable claimants 45 days from the date of this letter unless Regional Water Board staff 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 Mark Owens by phone (916-341-5796) or email (mowens@waterboards.ca.gov) within this period.

Sincerely,



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



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**State Water Resources Control Board**

**USTCF 5-YEAR REVIEW SUMMARY  
PRELIMINARY REVIEW – SEPTEMBER 2012**

**Agency Information**

Agency Name: Central Valley RWQCB (Region 5R)	Address: 415 Knollcrest Drive, Suite 100, Redding, CA 96002
Agency Caseworker: Melissa Buciak	Case No.: 450240

**Case Information**

USTCF Claim No.: 13623	Global ID: T0608900234
Site Name: Payless Gas & Food Mart	Site Address: 3440 Market Street S, Redding, CA 96001
Claimant Name: Jaswinder Shergill, Assignee	Address: 420 Alamo Avenue
USTCF Expenditures to Date \$517,859	Number of Years Case Open: 14

**Summary**

The Payless Gas & Food Mart is located at 34440 South Market Street in Redding, California. The Site is situated at the base of a hillside and is approximately half a mile west of the Sacramento River. The Site currently operates as a market and gas station, utilizing two, 10,000 gallon UST's. A subsurface investigation was performed at the Site in March 1997, which included the installation of soil borings near the USTs and dispenser islands – significant levels of contamination were found in the groundwater. Groundwater monitoring has occurred since 2000. Ozone sparging was conducted November 2006 through March 2009. A total of \$517,859 has been reimbursed by the Fund.

**Recommendation**

The Fund recommends short-termed, focused remediation in the source area to reduce the residual contaminant mass.

*Mark Owens* 9-25-12  
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Mark Owens, PE Date  
Technical Review Unit  
(916) 341-5816

*Robert Trommer* 9/25/12  
\_\_\_\_\_  
Robert Trommer, C.H.G. Date  
Chief, Technical Review Unit  
(916) 341-5684

*Pat Cullen*  
916-341-5735

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

## ATTACHMENT 1

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

#### Site Location/ History

- The Payless Gas & Food Mart is located at 34440 South Market Street in Redding, California. The Site is situated at the base of a hillside and is approximately half a mile west of the Sacramento River. The Site currently operates as a market and gas station, utilizing two, 10,000 gallon UST's.
- A subsurface investigation was performed at the Site in March 1997, which included the installation of soil borings near the USTs and dispenser islands – significant levels of contamination were found in the groundwater.
- Three monitoring wells were installed in 1999, six wells in 2000, and four wells in 2004.
- Subsurface delineation was conducted in 2004 using the Geoprobe combined Soil Conductivity and Membrane Interface Probe.
- 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.

#### Pollutant Source

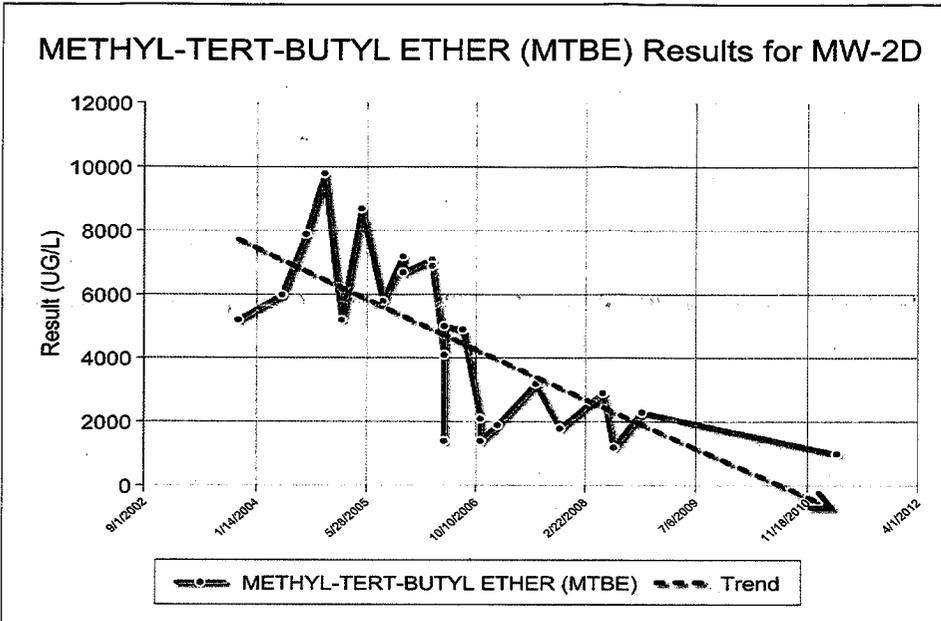
- Nature of Contaminants of Concern: Petroleum hydrocarbons only
- Source, Date reported, and Status of Release: UST system, 3/31/1998, UST's removed
- Free Phase Hydrocarbons: Has historically been observed in MW-1R and MW-2R. A hydrocarbon sheen was noted in MW-2R in the most recent monitoring event (1<sup>st</sup> Half 2011).

#### Geology/ Hydrogeology

- Stratigraphy: The site is underlain primarily by gravelly clays and sands with intermittent, discontinuous layers of clayey sands.
- Maximum Sample Depth: Unknown
- Minimum Groundwater Depth: 0.60 feet bgs at monitoring well MW-7.
- Maximum Groundwater Depth: 13.40 feet bgs at monitoring well MW-2D.
- Current Average Depth to Groundwater: Approximately 2 feet bgs
- Appropriate Screen Interval: All wells reported "depth to water" outside of their screened intervals except for one well during the last monitoring event in 2011.
- Saturated Zones(s) Studied: Between approximately 1 and 8 feet bgs
- Groundwater Flow Direction: Predominately to the east-northeast at an approximate gradient of 0.023 ft/ft.

### Groundwater Trends

- MTBE trends are shown below for source area and highest reporting monitoring well MW-2D.



### Receptors

- GW Basin: Redding Area - Anderson
- Beneficial Uses: Agricultural supply, industrial service supply, municipal and domestic supply, and industrial process supply
- Land Use Designation: None specified
- Public Water System(s): City of Redding Water Utility
- 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.
- Name and Distance to Nearest Surface Water Body: The Sacramento River is approximately ½ mile west of the Site.

### Risk Criteria

- Estimate of Hydrocarbon Mass in Soil: Unknown
- Soil/Groundwater tested for MTBE: Yes, see table below
- Plume length, extent and mobility: The MTBE plume is approximately 100 feet in length, confined to the Site and stable.
- Contaminated Zone(s) Used for Drinking Water: Unknown
- Risk from Residual Petroleum Hydrocarbons: Unknown

### Remediation Summary (Secondary Source Removal)

- Free Product: Historically observed in MW-1R and MW-2R
- Soil Excavation: Approximately 25 cubic yards of contaminated soil was excavated from the former waste oil tank location and disposed offsite on June 7, 1990.

- In-Situ Soil/Groundwater Remediation: Ozone sparging was conducted November 2006 through March 2009. Remediation was terminated because of financial concerns. Proposed is high vacuum dual phase extraction in the source area to reduce contaminant mass.
- Oxygen Concentrations in Soil Vapor: None identified

**Tank Information**

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
1-2	10,000	Gasoline	Active	-
3	500	Waste oil	Removed	1989

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (3/28/11)
MW-1R	2000	2-15	0.82
MW-2R	2000	2-15.5	1.84
MW-2D	2003	22-30	7.84
MW-3R	2000	2-15.5	1.30
MW-4	2000	2-15.5	1.08
MW-5	2000	2-15	2.36
MW-6	2000	2-15.5	1.03
MW-7	2003	3-16	0.60
MW-8	2003	3-16	1.08
MW-9	2003	3-16	2.57
MW-10	2003	3-16	2.86

**Petroleum Hydrocarbon Constituent Concentration**

Contaminant	Soil (mg/kg)		Water (µg/L)		WQOs (µg/L)
	Maximum	Latest	Maximum	Latest (3/28/11)	
TPHg	NA	NA	110,000	63,000	5
TPHd	NA	NA	NA	NA	56
Benzene	NA	NA	9,000	<0.5	0.15
Toluene	NA	NA	150,000	760	42
Ethylbenzene	NA	NA	150,000	1,800	29
Xylenes	NA	NA	1,300,000	21,000	1,750
MTBE	NA	NA	660,000	1,000	5
TBA	NA	NA	1,000	<10	1,200 <sup>A</sup>
Napthalene	NA	NA	NA	NA	170 <sup>B</sup>

NA: Not Analyzed, Not Applicable or Data Not Available

NL: Not listed

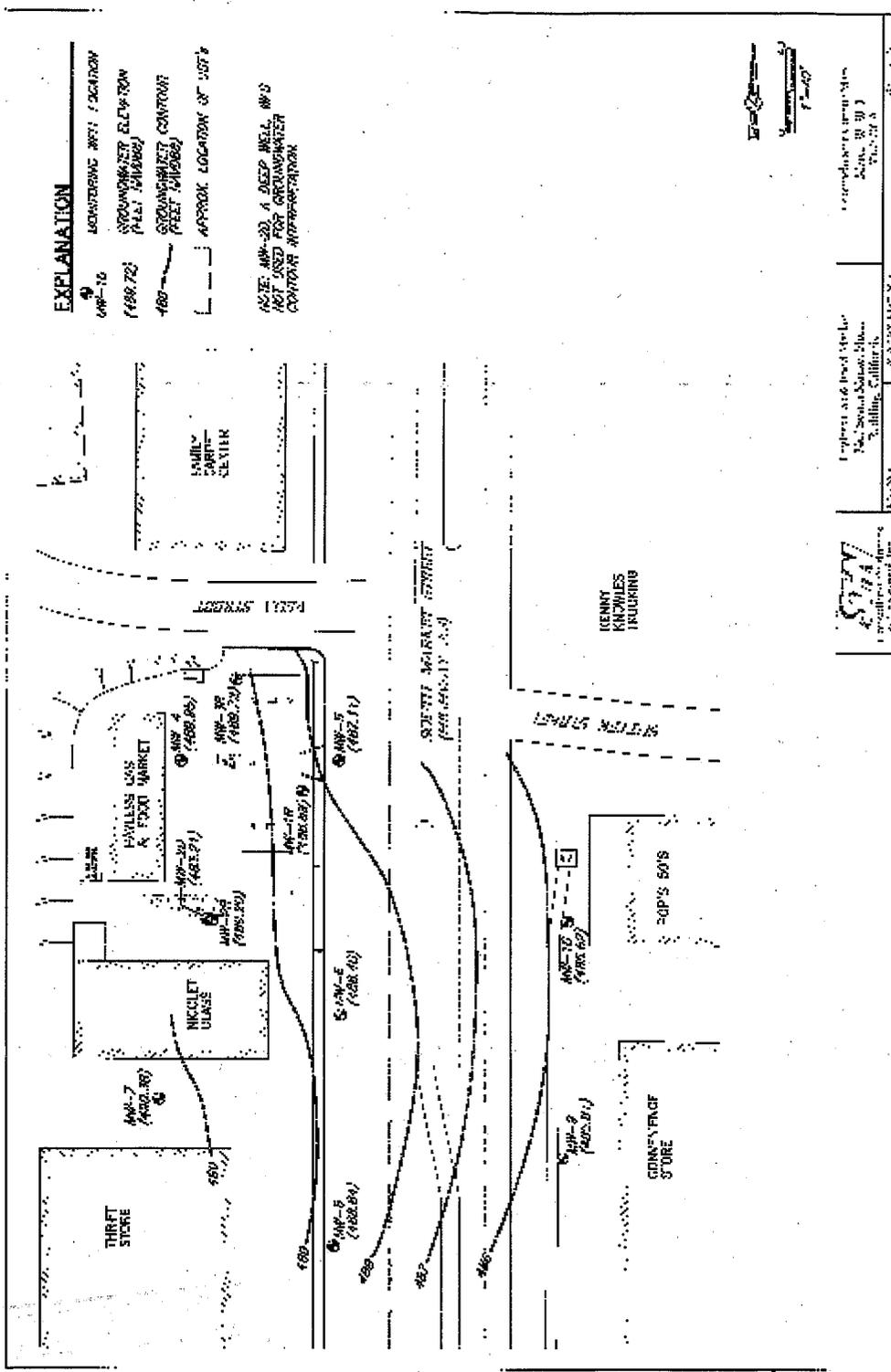
mg/kg: milligrams per kilogram, parts per million

µg/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives

<sup>A</sup> California Department of Public Health Response Level

<sup>B</sup> California Department of Public Health Response Level



Prepared and Issued by:  
M. Scott Moore, Director  
Building, California  
DIVISION OF OIL AND GAS  
1500 S. 1500 W.

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