

RECEIVED

2:59 pm, Mar 30, 2009

**Alameda County
Environmental Health**

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-577

March 30, 2009

Subject: Groundwater Monitoring Frequency, 76 Station 4625, 3070 Fruitvale Ave,
Oakland, RO# 0298

Dear Ms. Jakub:

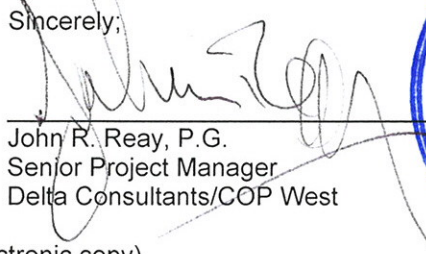
Based on analysis of groundwater monitoring results collected to date at this site we recommend modifying the current monitoring program to provide a more cost effective monitoring program reflective of current and projected future site conditions. This recommendation is based on the following conditions:

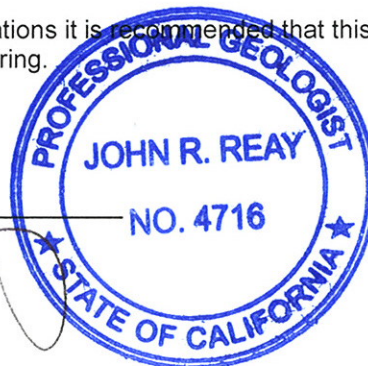
1. The site has been under quarterly monitoring since May 2000.
2. Monitoring wells MW-1, MW-3, MW-4, MW-8, and MW-9, have been "non-detect" at or below laboratory reporting limits for benzene at least the past 8 quarters. MW-8 and MW-9 have only been sampled since September 2007 (6 quarters) but have shown non-detect since.
3. Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-8, and MW-9 have been "non-detect" at or below laboratory reporting limits for MTBE, or at concentrations below the Primary MCL for MTBE for at least the past 8 quarters. MW-8 and MW-9 have only been sampled since September 2007 (6 quarters) but have shown non-detect since.
4. All monitored wells continue to show declining COC concentrations.
5. While groundwater velocities in the area can be expected to vary with respect to stratigraphy, well logs have shown lithology to be predominantly clays and silty sands and therefore hydraulic conductivity (K) can be expected to range from 10^{-6} feet/day to 10^{-2} feet/day (Fetter, C.W. 1987, pp. 80). Given very low measured groundwater gradients (dh/dl) that have ranged over the past 8 quarters from 0.01 to 0.03 with an average gradient of 0.023 and assuming an average effective porosity (n_e) of 0.35 groundwater velocities may be expected to range from 6.57×10^{-7} to 6.57×10^{-4} feet/day to the west where:

$$\text{Velocity} = K/n_e \times dh/dl$$

Given the above listed factors and observations it is recommended that this site be considered and approved for semi-annual groundwater monitoring.

Sincerely,



John R. Reay, P.G.
Senior Project Manager
Delta Consultants/COP West



Cc (electronic copy)
Mr. Terry Grayson, COP West


Attachments:
Portions of TRC Fourth Quarter 2008 QMR, dated January 21, 2009

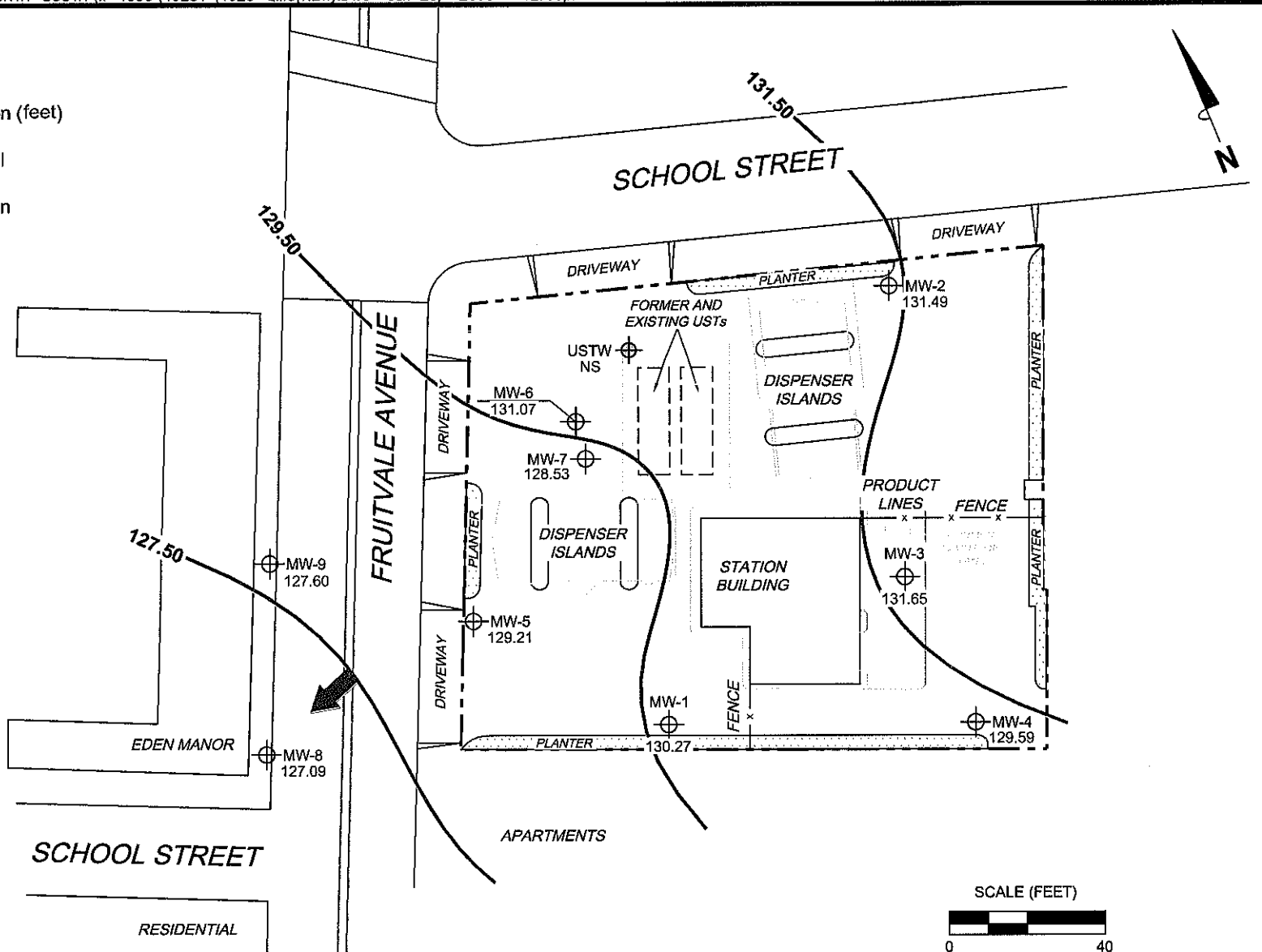
LEGEND

MW-9  Monitoring Well with Groundwater Elevation (feet)

USTW  UST Observation Well

131.50  Groundwater Elevation Contour

 General Direction of Groundwater Flow



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. NS = not surveyed. UST = underground storage tank.



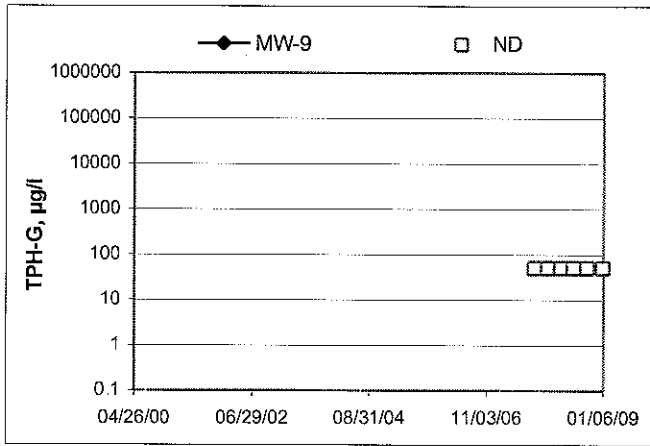
PROJECT: 154771

FACILITY:
76 STATION 4625
3070 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

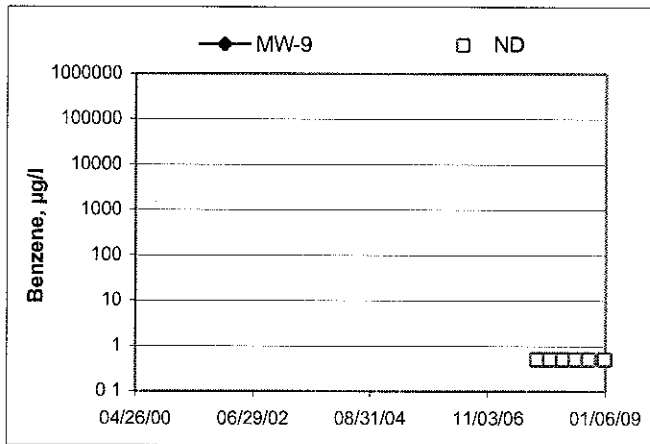
**GROUNDWATER ELEVATION
CONTOUR MAP
December 30, 2008**

FIGURE 2

TPH-G Concentrations vs Time
76 Station 4625



Benzene Concentrations vs Time
76 Station 4625



MTBE Concentrations vs Time
76 Station 4625

