



Texaco Refining
and Marketing Inc

108 Cutting Boulevard
Richmond, CA 94804

April 2, 1996

ENV-STUDIES, SURVEYS & REPORTS

2225 Telegraph Avenue, Oakland, California

Mr. Dale Klettke, CHMM
Alameda County Environmental Health Services
1131 Harbor Bay Parkway #250
Alameda, California 94502-6577

Dear Mr. Klettke:

As discussed in Texaco's letter to you dated February 12, 1996, Kaprealian Engineering, Inc. (KEI) has conducted an investigation (per your request) of possible horizontal and vertical conduits (preferential pathways) for the subject site. Also per your request to Texaco, KEI has investigated possible locations for an additional monitoring well. This letter summarizes KEI's investigation of these two issues.

POSSIBLE PREFERENTIAL PATHWAYS

In February and March 1996, KEI reviewed BART construction drawings and geotechnical reports dated 1963 to 1966. The BART tunnel is located adjacent to the northeast corner of the subject property, and trends north-northwest. Construction drawings indicate that three rail lines, installed by excavation from the surface, are contained in a concrete box-like structure with subdrain systems above and below. The top of this structure where nearest the subject site is about 20 feet below grade, stepping up to about 14 feet below grade at the two easternmost rail lines, further from the site.

The ground water flow direction at the subject site and vicinity is to the south, consistent with regional ground water flow direction and following the topographic slope towards San Francisco Bay. The gradient is relatively flat (0.007 typical). The subsurface lithology consists of silty clay underlain by silty sand at a depth of approximately 13 feet below grade. Both lithologic units have relatively low permeabilities.

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Based on monitoring data collected since February 1992, the maximum depth to ground water in well MW-6B, located adjacent to the BART tunnel, was 13.18 feet below grade and above the top of the BART tunnel structure. Therefore, the BART tunnel does not appear to represent a preferential pathway for migration of the dissolved plume.

REQUEST FOR ADDITIONAL MONITORING WELL

In February and March 1996, KEI completed an investigation of prior usage of the subject site and vicinity; including the review of available air photos at the US Geological Survey in Menlo Park, available Sanborn Fire Insurance maps, historical city directories, and a site reconnaissance. Air photos were available for the years 1946, 1958, 1965, 1974, and 1980 and Sanborn map coverage was available for the years 1902, 1912, 1951, 1952, 1957, 1959, 1961, 1962, 1967, and 1970. Historical city directories were reviewed for the years 1969, 1974, 1979, 1984, 1987, and 1989.

The following is a site by site summary of the relevant information obtained. The locations of the sites are shown on the attached Figure.

Former Texaco/Current Exxon:

The station is located at 2225 Telegraph Avenue at West Grand Avenue at the southeast corner of the intersection. BART plans dated 1966 and the Sanborn maps dated 1967 and 1970 show a service station at the site. Historical city directories list a Texaco station during the period 1969 through 1979.

Dave's Auto Repair - Former Unocal, Tony's and Beacon:

The repair shop is located at 2250 Telegraph Avenue at West Grand Avenue at the northeast corner of the intersection. The site is presently occupied by a recognizable service station building which is now used as an automobile repair facility. Three monitoring wells were observed on the site. Based on the labeling of the drums located at the site, the wells were installed in 1994.

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Sanborn maps show a gas station existing at the site beginning in 1951 and continuing through 1970 (date of last map reviewed). Historical city directories list the station as a Unocal during the period 1969 to 1979, as Tony's station in 1984, and as a Beacon in 1987 and 1989.

Operating Chevron Service Station:

The Chevron station is located at 2200 Telegraph Avenue at West Grand at the southeast corner of the intersection. Sanborn maps show a service station at the site from 1951 to 1959. Historical city directories list the Chevron station during the period 1974 to present.

SUMMARY / RECOMMENDATIONS

The historical direction of ground water flow diverges from the Bart tunnel (south vs. south-southeast). The elevation of the ground water table in MW-6B, located adjacent to the BART tunnel, has historically remained above the top of the Bart tunnel structure. Therefore, the Bart tunnel does not appear to represent a preferential pathway for migration of contamination from the subject site.

The predominant ground water flow direction at the subject site is subparallel to Telegraph Avenue. Based on a site reconnaissance, the closest feasible location for a monitoring well downgradient of monitoring well MW-6H is approximately 200 feet to the south at the southeastern corner of the intersection of Telegraph Avenue and 22nd Street (see Figure). However, the northeast and southeast corners of the intersection of Telegraph and West Grand Avenues have been used as service stations since at least 1951, and an environmental investigation apparently is being conducted at the former Unocal/Beacon service station (current Dave's Auto Repair) at the northeast corner. The closest feasible location for an additional downgradient monitoring well (200 feet) appears to be too far away to be an effective monitoring well. In addition, it might not be possible to identify the source of hydrocarbons that might be detected at this location.

*What about the
church parking lot?*

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The existing ground water pump and treat system was modified and enhanced by the addition of a vapor extraction system. The dual remediation system is expected to further reduce the concentrations of hydrocarbons at the site. Therefore, it does not appear that the installation of an additional monitoring well downgradient of monitoring well MW-6H would provide useful information.

If you have any questions or comments regarding this site, please do not hesitate to call me at (510) 236-9139.

Best Regards,




Karen E. Petryna, P.E.
Project Coordinator
TRMI, Environmental Health & Safety

KEP/SAS:hs
U:\...\2225\4-1-96.DK

Attachment

cc: Michael E. Faber, Exxon Company, U.S.A.
Sarkis A. Soghomonian, Kaprealian Engineering, Inc.

EEFreed-RRZielinski
RichFile-UCPFile

PR: 

1ST BAPTIST CHURCH
BUILT 1903

MW-61

TELEGR,

KWIK WAY DRIVE-IN

LEGEND :



VW-3 VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER



MW-6A PROPERLY ABANDONED WELL LOCATION AND WELL NUMBER



MW-1 GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER

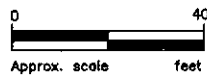


RW-1 GROUNDWATER RECOVERY/VAPOR EXTRACTION WELL LOCATION AND WELL NUMBER



TEXACO REMEDIATION SYSTEM TRENCH WITH 2" PVC VAPOR EXTRACTION LINE

SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994



Approx. scale feet



TEXACO

REFINING AND MARKETING INC.
TEXACO ENVIRONMENTAL SERVICES

FORMER TEXACO SERVICE STATION
2225 TELEGRAPH AVE. / GRAND AVE.,
OAKLAND, CALIFORNIA

SCALE	1"=40'-0"	LOCATION #	62-488-0195
DRAWN BY	AMA, RAT	DATE	07/28/95, 3/20/96
CHECKED BY		DATE	
DRAWING NO.	(OAKLAND) TE-GR-OK.DWG		