AC Transit
Alameda-Contra Costa Transit District

10626 East 14th Street, Oakland, California 94603☐ (510) 577-8804
FAX☐ (510) 577-8859

January 29, 1999

Ms. eva chu
Alameda County Health Division
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Ms. chu:

Subject: Second Quarterly Groundwater Monitoring Report
AC Transit, 1177 47th Street, Emeryville

AC Transit hereby submits the enclosed second quarterly groundwater monitoring report for the AC Transit facility located at 1177 47th Street in Emeryville. The report was prepared by our consultant, Environmental Decision Group.

Ground water samples from the ten on-site monitoring wells (MW-1 through MW-10) were collected and analyzed for total petroleum hydrocarbons TPH), benzene, toluene, ethylbenzene, and xylenes. In addition, depth to ground water was measured in each well and ground water contour maps were developed for the report. The sample results indicate that TPH was detected in all monitoring wells except MW-4. Concentrations of TPH ranged from 120 to 6,100 ppb. In addition, benzene was present in well MW-6 at a concentration of 45 ppb. The free phase hydrocarbon layer detected in well MW-6 was limited to a sheen for this sampling event.

If you have any questions regarding this information or other matters pertaining to this site, please call me at (510) 577-8869.

Sincerely,

Suzanne Patton

Suzanne Patton, P.E.
Environmental Manager

SP/sp

enclosure

00 JAN 32 PM 3:15
ENVIRONMENTAL PROTECTION

Evachu3.doc

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47TH STREET, EMERYVILLE, CALIFORNIA

2/2/00

- Next QMR, include lab data

January 21, 2000 - GW should be analyzed for TPHg, TPHd, TPHmo BTEX, MTBE

- UST removal report
- Are wells W1, W2 and W3 available for sampling
- any reports of follow up investigations for closed release into Emeryville CK

safety-kleen

2233 SANTA CLARA AVE., SUITE 7 ALAMEDA, CALIFORNIA 94501 510.337.8661 FAX 510.337.9993

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47th STREET, EMERYVILLE, CALIFORNIA

January 20, 2000

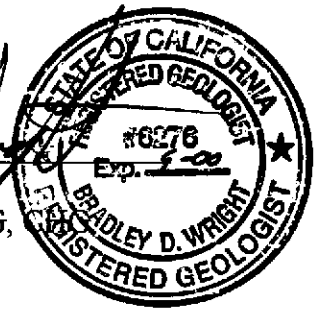
Prepared For:

Ms. Suzanne Patton
AC Transit
10626 E. 14th Street
Oakland, California 94603

Prepared By:

Safety-Kleen Consulting
2233 Santa Clara Avenue
Alameda, California 94501

Project No: 792551



Written By
Brad Wright, RG, CHG

Table of Contents

List of Figures

List of Tables

INTRODUCTION

This report presents the results from the November 1999 sampling event for the AC Transit Facility located at 1177 47th Street, Emeryville, California (Site). Groundwater sampling of monitor wells MW-1 through MW-10 was reinstated in August 1999, in accordance with directives from Alameda County Health Care Services. AC Transit retained Safety-Kleen Consulting to perform this work.

OBJECTIVES AND SCOPE OF WORK

Work performed during this sampling event included measuring depth to water in the monitor wells and sample collection. Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) using Environmental Protection Agency (EPA) Method 8015 and benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA Method 8260B.

A site map displaying the monitoring well locations is presented as Figure 1. Chain-of-custody documents are included in Appendix A. Field data sheets and certified analytical reports are kept on file and are available upon request.

Groundwater Elevations and Flow Direction

On November 23, 1999, all site monitor wells were inspected and measured for presence of free phase hydrocarbons and depth to groundwater. Measurements of depths to groundwater are presented on Table 1 and were used to construct the groundwater elevation contours shown in Figure 1. The free phase hydrocarbon detected in MW-6 during the August 1999 sampling event was not present during this sampling event, however a hydrocarbon sheen was detected. As shown on Figure 1, groundwater flow is to the west at a gradient of 0.018 feet/foot.

Groundwater Sampling Activities

The monitor wells were purged a minimum of three casing volumes using a centrifugal pump and samples were collected using disposable polyethylene bailers. During well purging, field parameters for pH, electrical conductivity and temperature were monitored using calibrated field meters. Purge water was transferred to 55-gallon drums and placed in the Site's drum waste storage area.

Groundwater samples were transferred to 40-milliliter glass vials preserved with hydrochloric acid and one-liter non-preserved amber glass containers and placed in an ice-filled cooler for shipment under chain-of-custody to a State of California certified laboratory. A trip blank was submitted for analysis by EPA Method 8260.

Groundwater Analytical Results

Table 2 presents groundwater analytical results for the November 1999 sampling event. TPH was detected in all Site monitor wells except for MW-4. Concentrations of TPH above laboratory reporting limits ranged from 120 to 6,100 parts per billion (ppb). In addition, benzene was detected in well MW-6, at a concentration of 45 ppb, which is above the maximum contaminant level (MCL) of 1.0 ppb. Concentrations of TPH and BTEX declined over those reported during the August 1999 sampling event at all wells except for concentrations of TPH detected in MW-5.

No analytes were detected in the trip blanks or method blanks. A lab control spike and lab control spike duplicate passed the EPA's criteria for acceptance.

SUMMARY OF RESULTS

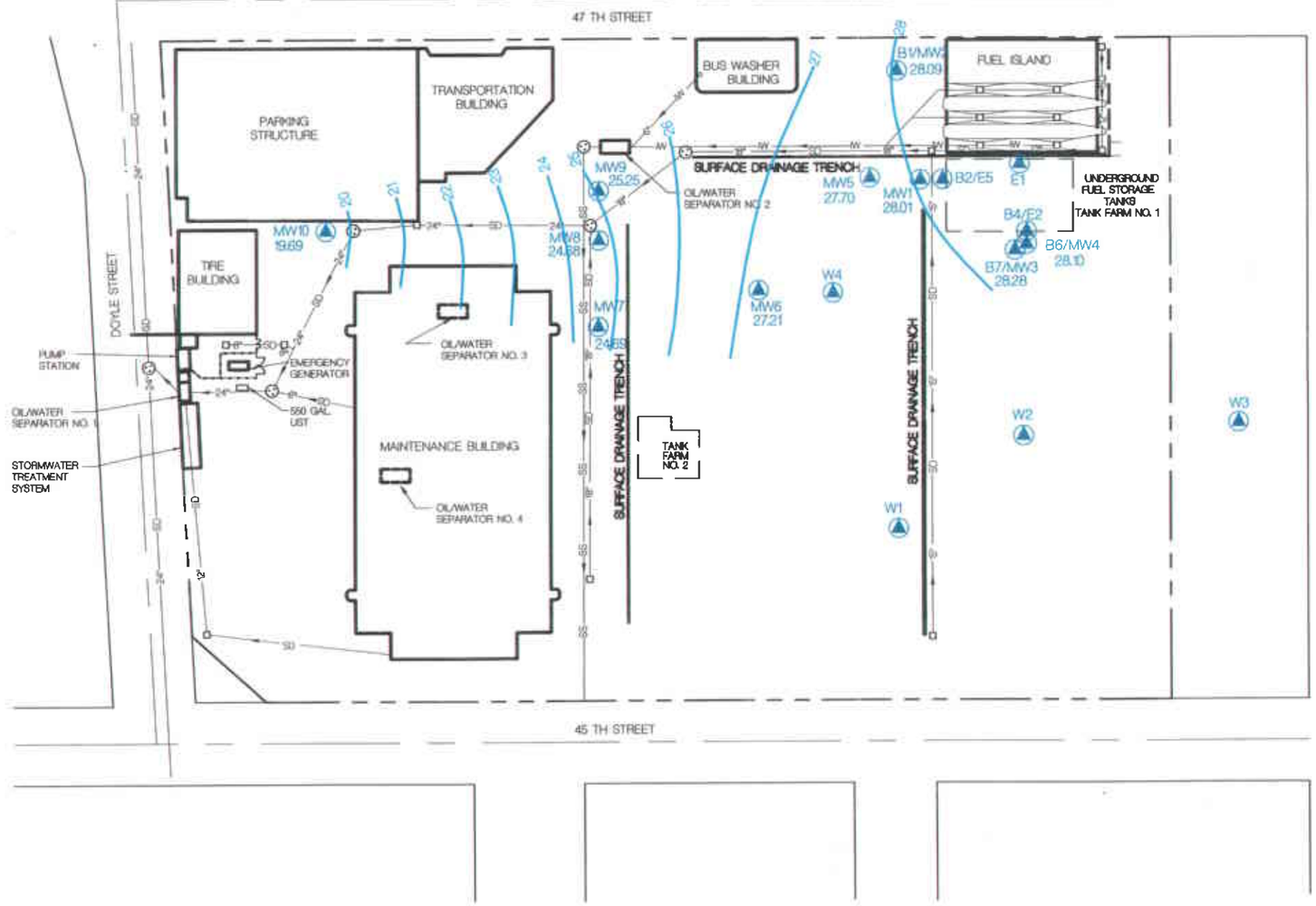
- The free phase hydrocarbon layer detected in monitor well MW-6 during the August 1999 sampling event was limited to a sheen during the November 1999 sampling event.

- Groundwater flow direction was interpreted to be toward the west at a gradient of 0.018 feet/foot.

- Concentrations in excess of MCLs was limited to 45 ppb benzene detected in monitor well MW-6.

PROJECTED WORK AND RECOMMENDATIONS

- Quarterly groundwater monitoring is scheduled for February 2000.



LEGEND

MANHOLE	STORM DRAIN PIPELINE (SD)
CATCH BASIN	SANITARY SEWER PIPELINE (SS)
MONITORING WELL	INDUSTRIAL WASTE PIPELINE (IW)
1954 POTENTIOMETRIC SURFACE ELEVATION	CHAIN LINK FENCE
POTENTIOMETRIC SURFACE CONTOUR	

	BY	DATE
DRAWN	CJJ	01-11-00
CHECKED		
APPROVED		
APPROVED		
APPROVED		

safety-kleen consulting

EMERYVILLE FACILITY - OAKLAND CALIFORNIA

FIGURE 1
AC TRANSIT - POTENTIOMETRIC SURFACE MAP

SCALE: 1" = 100'

DWG. NO: 792551-004

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-1	8/31/99	32.56	None	3.24	29.32	NA
	11/23/99		**None**	**4.55**	**28.01**	**NA**
MW-2	8/31/99	32.12	None	5.24	26.88	NA
	11/23/99		**None**	**4.03**	**28.09**	**NA**
MW-3	8/31/99	34.06	None	6.15	27.91	NA
	11/23/99		**None**	**5.78**	**28.28**	**NA**
MW-4	8/31/99	34.11	None	6.22	27.89	NA
	11/23/99		**None**	**6.01**	**28.10**	**NA**
MW-5	8/31/99	31.70	None	4.51	27.19	NA
	11/23/99		**None**	**4.00**	**27.70**	**NA**
MW-6	8/31/99	31.02	0.40	4.40	26.62	26.94
	11/23/99		**Sheen**	**3.81**	**27.21**	**NA**
MW-7	8/31/99	29.62	None	5.47	24.15	NA
	11/23/99		**None**	**4.93**	**24.69**	**NA**
MW-8	8/31/99	29.43	None	5.35	24.08	NA
	11/23/99		**None**	**4.75**	**24.68**	**NA**
MW-9	8/31/99	29.18	None	4.15	25.03	NA
	11/23/99		**None**	**3.93**	**25.25**	**NA**
MW-10	8/31/99	29.13	None	9.59	19.54	NA
	11/23/99		**None**	**9.44**	**19.69**	**NA**

Notes:
* used 0.8 specific gravity of product
ft-msl: feet-mean sea level
DTW: Depth to Water
NA: Not applicable

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH	Benzene	Toluene	Ethylbenzene	Xylenes
		MCL (ppb)	1.0	150	700	1,750
MW-1	8/31/99	310	<1.0	2.4	1	1.6
	11/23/99	250	<1.0	<1.0	<1.0	<1.0
MW-2	8/31/99	180	<1.0	<1.0	<1.0	1.2
	11/23/99	120	<5.0	<5.0	<5.0	<5.0
MW-3	8/31/99	2,700	<1.0	<1.0	<1.0	<1.0
	11/23/99	640	<1.0	<1.0	<1.0	<1.0
MW-4	8/31/99	<50	<1.0	<1.0	<1.0	1.6
	11/23/99	<50	<1.0	<1.0	<1.0	<1.0
MW-5	8/31/99	250	<1.0	<1.0	<1.0	1
	11/23/99	300	<5.0	<5.0	<5.0	<5.0
MW-6	8/31/99	140,000	77	18	31	49
	11/23/99	6,100	45	14	6.9	48
MW-7	8/31/99	1,400	<1.0	2.9	2.3	2.7
	11/23/99	530	<1.0	<1.0	<1.0	<1.0
MW-8	8/31/99	230	<1.0	<1.0	1.2	<1.0
	11/23/99	220	<1.0	<1.0	<1.0	<1.0
MW-9	8/31/99	2,800	<1.0	<1.0	<1.0	1.1
	11/23/99	1,300	<1.0	<1.0	<1.0	<1.0
MW-10	8/31/99	1,100	<1.0	1.2	2.0	<1.0
	11/23/99	1,200	<1.0	<1.0	<1.0	<1.0

Notes:
ppb: parts per billion
TPH: total petroleum hydrocarbons
MCL: maximum contaminant level

APPENDIX A

CHAIN-OF-CUSTODY

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Safety Kleen Consulting	Project Manager: Brad Wright	Date: 11/23/99	Chain of Custody Number: 26791
Address: 2233 Santa Clara Ave Suite 7	Telephone Number (Area Code)/Fax Number: 510 337 8660	Lab Number:	Page ____ of ____
City: Alameda State: CA Zip Code: 94501	Site Contact: Lab Contact:		
Project Name: AC Transit Emeryville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 792551			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8015 (Diesel)	Special Instructions/ Conditions of Receipt
MW-3	11/23/99	1135	X			X						X	Good
MW-4		1150											
MW-1		1210											
MW-5		1230											
MW-2		1315											
MW-10		1330											
MW-8		1425											
MW-7		1435											
MW-9		1505											
MW-6	↓	1525	↓			↓						↓	↓ 11/24/99

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other____

QC Requirements (Specify): Standard

	Date	Time		Date	Time
1. Relinquished By: [signature]	11/23/99	1630	1. Received By: URS	11/23/99	1630
2. Relinquished By			2. Received By: [signature]	11/24/99	1100
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Safety-Kleen Consulting	Project Manager: Brad Wright	Date: 11/23/99	Chain of Custody Number: 26787
Address: 2233 Santa Clara Ave, Suite 7	Telephone Number (Area Code)/Fax Number: 510 337 8660	Lab Number:	Page ____ of ____
City: Alameda / State: CA / Zip Code: 94501	Site Contact:	Lab Contact:	
Project Name: AC Transit Emeryville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 792551			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8020 (BTEX)	Special Instructions/ Conditions of Receipt
MW-3	11/23/99	1135	X						X			X	2 VOAs
MW-4		1150											
MW-1		1210											
MW-5		1230											
MW-2		1315											
MW-10		1330											
MW-8		1425											
MW-7		1435											
MW-9		1505											
MW-6		1525											
Trip Blank		0900											

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other ____

QC Requirements (Specify): Standard

1. Relinquished By: Chhala	Date: 11/23/99	Time: 1630	1. Received By: UPS	Date: 11/23/99	Time: 1630
2. Relinquished By:	Date:	Time:	2. Received By:	Date: 11/24/99	Time: 1110
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: *WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy*