RO 402

Alameda-Contra Costa Transit District

May 4, 2005

Mr. Amir Gholani
Alameda County Health Division
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Mr. Amir:

Subject: Quarterly Groundwater Monitoring Report – February 2005 Sampling
AC Transit, 1177 47th Street, Emeryville

AC Transit hereby submits the enclosed Quarterly Groundwater Monitoring Report for the AC Transit facility located at 1177 47th Street in Emeryville. This report was prepared by our consultant, Cameron-Cole, LLC, and contain the results of the February 2005 sampling event.

The quarterly groundwater monitoring included collecting groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12 and W-1 and measuring depth to water in all monitoring wells. These samples were analyzed for total petroleum hydrocarbons (TPH) using modified EPA Method 8015 and benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) using EPA Method 8021B. TPH as degraded diesel was detected in wells MW-6, MW-7, MW-10, MW-12 and W-1. TPH as degraded gasoline was detected wells MW-6,MW-7, MW-10, MW-12, and W-1.

If you have any questions or comments regarding the enclosed report, please call me at (510) 577-8869.

Sincerely,

Suzanne Patton

Suzanne Patton, P.E.
Environmental Engineer
enclosure

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

April 2005

Prepared For:

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

Prepared By:

Cameron-Cole
101 W. Atlantic Avenue
Building 90
Alameda, California 94501

CAMERON-COLE

Project No: 2016

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

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CAMERON-COLE

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INTRODUCTION

This report presents the results from the February 2005 sampling event for the AC Transit Facility located at 1177 47th Street, Emeryville, California (Site). Groundwater sampling of monitor wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12 and W-1 was conducted in accordance with directives from Alameda County Health Care Services (ACHCS). In a letter dated November 7, 2001, ACHCS requested quarterly groundwater sampling for monitor wells MW-11, MW-12 and MW-13 and semi-annual groundwater sampling of other Site monitor wells. AC Transit retained Cameron-Cole to perform this work.

GROUNDWATER MONITORING

Work performed during this sampling event included measuring depth to water in all monitor wells and collecting groundwater samples from monitor wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12 and W-1. Groundwater samples were analyzed for total extractable petroleum hydrocarbons (TEPH) using Environmental Protection Agency (EPA) Method 8015 Modified; benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B, and methods of water and waste (MCAWW) 300.0A for nitrate and sulfate. A groundwater sample was not collected from MW-13 due to the presence of a free phase hydrocarbon layer. However, the free phase hydrocarbon layer was purged from MW-13.

A site map displaying the monitor well locations is presented as Figure 1. Chain-of-custody documents, field data sheets and certified analytical reports are included in Appendix A.

Groundwater Elevations and Flow Direction

On February 23, 2005, all 16 Site monitor wells were inspected and measured for the 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 2. As shown, groundwater flow is to the west at a gradient of 0.026 feet/foot. A free phase hydrocarbon layer measuring 0.07 feet was detected in MW-13.

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, dissolved oxygen, oxidation-reduction potential, ferrous iron and temperature were monitored using calibrated field meters.

Groundwater samples were collected in 40-milliliter glass vials preserved with hydrochloric acid, one-liter non-preserved amber glass containers, and 250-milliliter polyethylene non-preserved bottles 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 8021B.

Groundwater Analytical Results

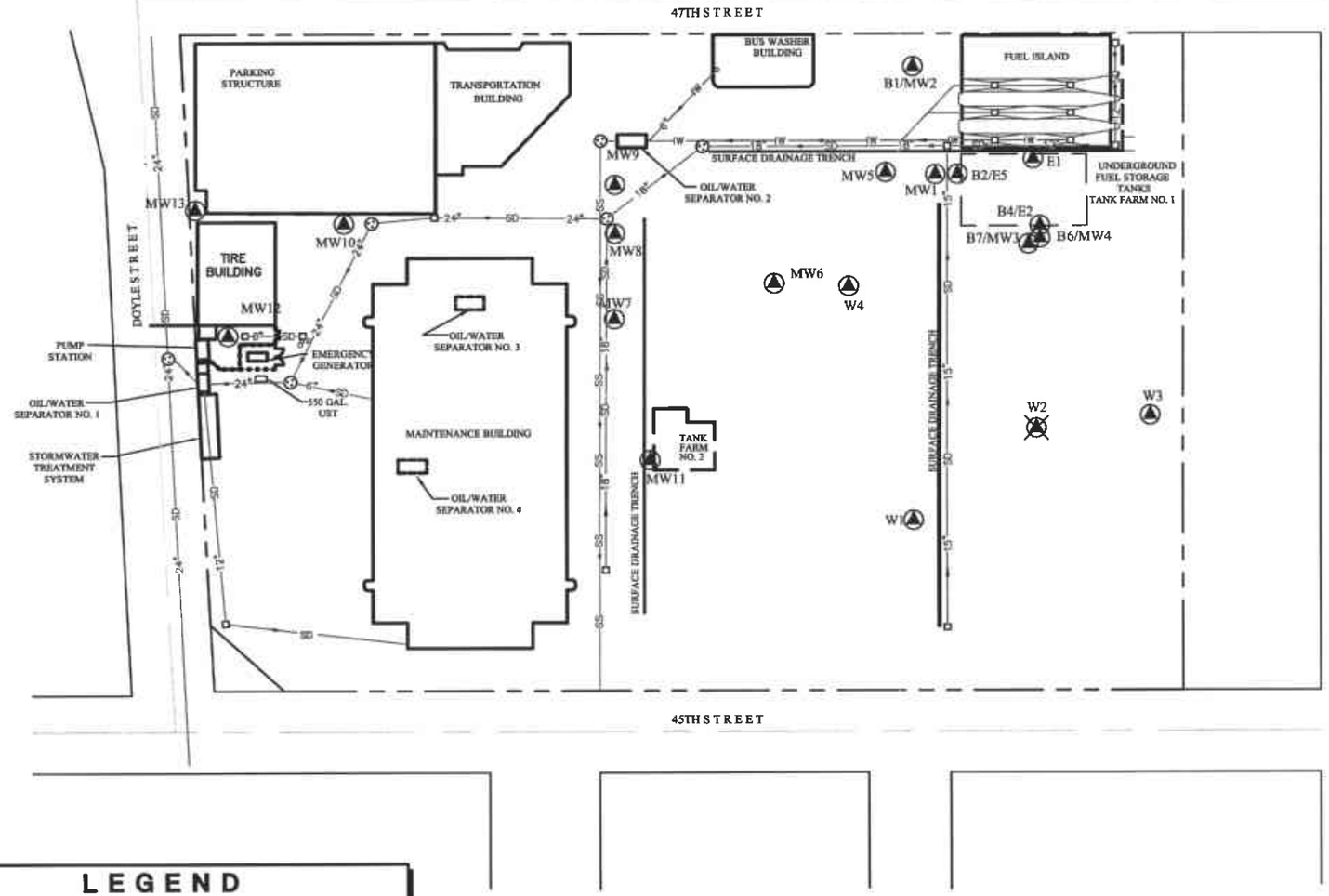
Table 2 presents groundwater analytical results for the February 2005 sampling event. TPH as degraded diesel was detected in monitor wells MW-6, MW-7, MW-10, MW-12, and W-1. TPH as degraded gasoline was detected in MW-6, MW-7, MW-10, MW-12, and W-1. Benzene was detected above the State of California maximum contaminant level (MCL) of 1.0 part per billion (ppb) in MW-6, MW-12 and W-1. No analytes were detected in the trip blank or method blank. A lab control spike and lab control spike duplicate passed the EPA's criteria for acceptance.

SUMMARY OF RESULTS

- Groundwater flow is to the west at a gradient of 0.026 feet/foot.
- TPH as degraded diesel was detected in MW-6 (4,930 ppb), MW-7 (290 pbb), MW-10 (310 ppb), MW-12 (340 ppb) and W-1 (1,910 ppb).
- TPH as degraded gasoline was detected in MW-6 (687 ppb), MW-7 (283 pbb), MW-10 (207 ppb), MW-12 (790 ppb) and W-1 (3,900 ppb).
- Benzene was detected above the MCL of 1.0 ppb in MW-6 (7.9 ppb), MW-12 (3.0 ppb), W-1 (74.1 ppb).

PROJECTED WORK AND RECOMMENDATIONS

- Quarterly groundwater monitoring of monitoring wells MW-11 and MW-12, including removal of the free product layer in MW-13 is scheduled for May 2005. This event will include site-wide depth to groundwater level measurements, including inspection of each monitor well for free-phase hydrocarbon.



LEGEND

- MANHOLE
- CATCH BASIN
- MONITORING WELL
- ABANDONED MONITORING WELL
- SD — STORM DRAIN PIPELINE
- SS — SANITARY SEWER PIPELINE
- IW — INDUSTRIAL WASTE PIPELINE
- CHAIN LINK FENCE

	BY	DATE
DRAWN	WRB	10/25/02
CHECKED		
APPROVED		
APPROVED		
APPROVED		

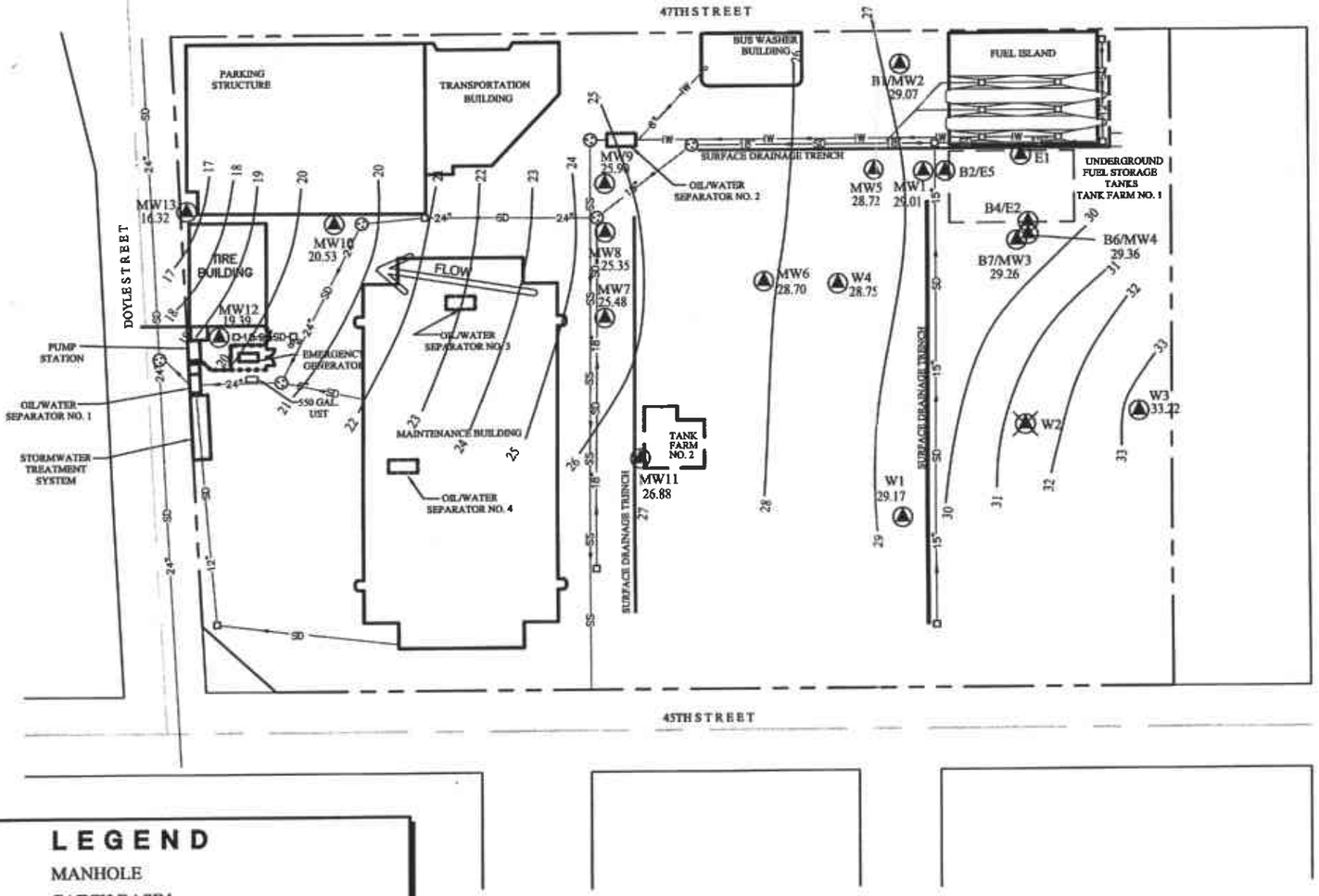
CAMERON-COLE

EMERYVILLE FACILITY - OAKLAND, CALIFORNIA

FIGURE 1
AC TRANSIT - MONITORING WELL LOCATION MAP

SCALE: 1" = 100'

DWG. NO.: 2015-01



LEGEND

- MANHOLE
- CATCH BASIN
- MONITORING WELL
- ABANDONED MONITORING WELL
- 26.53 — POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR
- SD — STORM DRAIN PIPELINE
- SS — SANITARY SEWER PIPELINE
- IW — INDUSTRIAL WASTE PIPELINE
- CHAIN LINK FENCE

	BY	DATE
DRAWN	SPS	3/24/05
CHECKED		
APPROVED		
APPROVED		
APPROVED		

CAMERON-COLE

FIGURE 2

EMERYVILLE FACILITY - OAKLAND, CALIFORNIA

AC TRANSIT - POTENTIOMETRIC SURFACE MAP
FEBRUARY 2005

SCALE: 1" = 100'

DWG. NO.: 2015-20

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	8/31/1999	32.56	None	3.24	29.32	NA
	11/23/1999		None	4.55	28.01	NA
	3/1/2000		None	3.65	28.91	NA
	5/17/2000		None	4.08	28.48	NA
	8/30/2000		None	5.18	27.38	NA
	12/18/2000		None	4.86	27.7	NA
	3/20/2001		None	4.22	28.34	NA
	6/7/2001		None	4.88	27.68	NA
	9/20/2001		None	4.97	27.59	NA
	12/14/2001		None	3.59	28.97	NA
	2/27/2002		None	4.03	28.53	NA
	5/16/2002		None	4.32	28.24	NA
	9/18/2002		None	4.61	27.95	NA
	10/30/2002		None	4.74	27.82	NA
	2/6/2003		None	4.08	28.48	NA
	5/1/2003		None	3.68	28.88	NA
	8/26/2003		None	4.64	27.92	NA
	11/20/2003		None	4.57	27.99	NA
	2/10/2004		None	3.95	28.61	NA
	5/18/2004		None	4.45	28.11	NA
	8/30/2004		None	5.14	27.42	NA
	11/17/2004		None	4.2	28.36	NA
	2/23/2005		**None**	**3.55**	**29.01**	**NA**
MW-2	8/31/1999	32.12	None	5.24	26.88	NA
	11/23/1999		None	4.03	28.09	NA
	3/1/2000		None	3.11	29.01	NA
	5/17/2000		None	3.66	28.46	NA
	8/30/2000		None	4.65	27.47	NA
	12/18/2000		None	4.06	28.06	NA
	3/20/2001		None	3.91	28.21	NA
	6/7/2001		None	4.40	27.72	NA
	9/20/2001		None	4.45	27.67	NA
	12/14/2001		None	3.19	28.93	NA
	2/27/2002		None	3.45	28.67	NA
	5/16/2002		None	3.74	28.38	NA
	9/18/2002		None	4.20	27.92	NA
	10/30/2002		None	4.23	27.89	NA
	2/6/2003		None	3.70	28.42	NA
	5/1/2003		None	3.59	28.53	NA
	8/26/2003		None	4.24	27.88	NA
	11/20/2003		None	4.35	27.77	NA
	2/10/2004		None	3.61	28.51	NA
	5/18/2004		None	3.91	28.21	NA
	8/30/2004		None	4.62	27.50	NA
	11/17/2004		None	3.91	28.21	NA
	2/23/2005		**None**	**3.05**	**29.07**	**NA**

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-3	8/31/1999	34.06	None	6.15	27.91	NA
	11/23/1999		None	5.78	28.28	NA
	3/1/2000		None	4.82	29.24	NA
	5/17/2000		None	5.29	28.77	NA
	8/30/2000		None	6.20	27.86	NA
	12/18/2000		None	5.65	28.41	NA
	3/20/2001		None	5.18	28.88	NA
	6/7/2001		None	6.01	28.05	NA
	9/20/2001		None	5.9	28.16	NA
	12/14/2001		None	4.66	29.40	NA
	2/27/2002		None	5.00	29.06	NA
	5/16/2002		None	5.21	28.85	NA
	9/18/2002		None	5.61	28.45	NA
	10/30/2002		None	5.72	28.34	NA
	2/6/2003		None	4.97	29.09	NA
	5/1/2003		None	4.89	29.17	NA
	8/26/2003		None	5.82	28.24	NA
	11/20/2003		None	5.92	28.14	NA
	2/10/2004		None	4.99	29.07	NA
	5/18/2004		None	5.52	28.54	NA
	8/30/2004		None	6.25	27.81	NA
	11/17/2004		None	5.25	28.81	NA
	2/23/2005		**None**	**4.80**	**29.26**	**NA**
MW-4	8/31/1999	34.11	None	6.22	27.89	NA
	11/23/1999		None	6.01	28.10	NA
	3/1/2000		None	4.74	29.37	NA
	5/17/2000		None	5.33	28.78	NA
	8/30/2000		None	6.26	27.85	NA
	12/18/2000		None	5.66	28.45	NA
	3/20/2001		None	5.46	28.65	NA
	6/7/2001		None	6.02	28.09	NA
	9/20/2001		None	6.06	28.05	NA
	12/14/2001		None	5.39	28.72	NA
	2/27/2002		None	5.28	28.83	NA
	5/16/2002		None	5.39	28.72	NA
	9/18/2002		None	5.61	28.50	NA
	10/30/2002		None	5.70	28.41	NA
	2/6/2003		None	5.39	28.72	NA
	5/1/2003		None	5.25	28.86	NA
	8/26/2003		None	5.88	28.23	NA
	11/20/2003		None	5.84	28.27	NA
	2/10/2004		None	5.10	29.01	NA
	5/18/2004		None	5.58	28.53	NA
	8/30/2004		None	6.30	27.81	NA
	11/17/2004		None	5.34	28.77	NA
	2/23/2005		**None**	**4.75**	**29.36**	**NA**

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-5	8/31/1999	31.70	None	4.51	27.19	NA
	11/23/1999		None	4.00	27.70	NA
	3/1/2000		None	3.31	28.39	NA
	5/17/2000		None	3.59	28.11	NA
	8/30/2000		None	4.53	27.17	NA
	12/18/2000		None	3.97	27.73	NA
	3/20/2001		None	3.68	28.02	NA
	6/7/2001		None	4.37	27.33	NA
	9/20/2001		None	4.46	27.24	NA
	12/14/2001		None	3.23	28.47	NA
	2/27/2002		None	3.44	28.26	NA
	5/16/2002		None	3.68	28.02	NA
	9/18/2002		None	4.04	27.66	NA
	10/30/2002		None	4.21	27.49	NA
	2/6/2003		None	3.61	28.09	NA
	5/1/2003		None	3.15	28.55	NA
	8/26/2003		None	4.00	27.70	NA
	11/20/2003		None	4.20	27.50	NA
	2/10/2004		None	3.38	28.32	NA
	5/18/2004		None	3.75	27.95	NA
	8/30/2004		None	4.55	27.15	NA
	11/17/2004		None	3.62	28.08	NA
	2/23/2005		**None**	**2.98**	**28.72**	
MW-6	8/31/1999	31.02	None	4.40	26.62	NA
	11/23/1999		None	3.81	27.21	NA
	3/1/2000		None	2.88	28.14	NA
	5/17/2000		None	3.44	27.58	NA
	8/30/2000		None	4.40	26.62	NA
	12/18/2000		None	3.61	27.41	NA
	3/20/2001		None	3.16	27.86	NA
	6/7/2001		None	4.18	26.84	NA
	9/20/2001		Sheen	4.22	26.80	NA
	12/14/2001		None	3.62	27.40	NA
	2/27/2002		None	2.94	28.08	NA
	5/16/2002		None	3.53	27.49	NA
	9/18/2002		None	3.97	27.05	NA
	10/30/2002		None	3.96	27.06	NA
	2/6/2003		None	2.97	28.05	NA
	5/1/2003		None	3.98	27.04	NA
	8/26/2003		None	3.82	27.20	NA
	11/20/2003		None	3.78	27.24	NA
	2/10/2004		None	2.94	28.08	NA
	5/18/2004		None	3.47	27.55	NA
	8/30/2004		None	4.22	26.80	NA
	11/17/2004		None	3.19	27.83	NA
	2/23/2005		**None**	**2.32**	**28.70**	**NA**

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-7	8/31/1999	29.62	None	5.47	24.15	NA
	11/23/1999		None	4.93	24.69	NA
	3/1/2000		None	4.06	25.56	NA
	5/17/2000		None	4.69	24.93	NA
	8/30/2000		None	5.50	24.12	NA
	12/18/2000		None	5.78	23.84	NA
	3/20/2001		None	4.83	24.79	NA
	6/7/2001		None	4.80	24.82	NA
	9/20/2001		None	5.19	24.43	NA
	12/14/2001		None	4.68	24.94	NA
	2/27/2002		None	4.53	25.09	NA
	5/16/2002		None	4.34	25.28	NA
	9/18/2002		None	5.28	24.34	NA
	10/30/2002		None	5.51	24.11	NA
	2/6/2003		None	4.36	25.26	NA
	5/1/2003		None	4.76	24.86	NA
	8/26/2003		None	5.25	24.37	NA
	11/20/2003		None	5.26	24.36	NA
	2/10/2004		None	4.31	25.31	NA
	5/18/2004		None	4.46	25.16	NA
	8/30/2004		None	5.61	24.01	NA
	11/17/2004		None	4.82	24.80	NA
	2/23/2005		**None**	**4.14**	**25.48**	**NA**
MW-8	8/31/1999	29.43	None	5.35	24.08	NA
	11/23/1999		None	4.75	24.68	NA
	3/1/2000		None	4.48	24.95	NA
	5/17/2000		None	4.78	24.65	NA
	8/30/2000		None	5.02	24.41	NA
	12/18/2000		None	5.23	24.20	NA
	3/20/2001		None	4.70	24.73	NA
	6/7/2001		None	5.13	24.30	NA
	9/20/2001		None	5.68	23.75	NA
	12/14/2001		None	4.26	25.17	NA
	2/27/2002		None	4.18	25.25	NA
	5/16/2002		None	4.58	24.85	NA
	9/18/2002		None	4.96	24.47	NA
	10/30/2002		None	4.99	24.44	NA
	2/6/2003		None	4.41	25.02	NA
	5/1/2003		None	4.29	25.14	NA
	8/26/2003		None	4.58	24.85	NA
	11/20/2003		None	4.69	24.74	NA
	2/10/2004		None	4.22	25.21	NA
	5/18/2004		None	4.52	24.91	NA
	8/30/2004		None	4.79	24.64	NA
	11/17/2004		None	4.56	24.87	NA
	2/23/2005		**None**	**4.08**	**25.35**	**NA**

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-9	8/31/1999	29.18	None	4.15	25.03	NA
	11/23/1999		None	3.93	25.25	NA
	3/1/2000		None	3.69	25.49	NA
	5/17/2000		None	3.56	25.62	NA
	8/30/2000		None	4.64	24.54	NA
	12/18/2000		None	4.02	25.16	NA
	3/20/2001		None	3.92	25.26	NA
	6/7/2001		None	4.28	24.90	NA
	9/20/2001		None	5.12	24.06	NA
	12/14/2001		None	3.87	25.31	NA
	2/27/2002		None	4.48	24.70	NA
	5/16/2002		None	5.13	24.05	NA
	9/18/2002		None	4.48	24.70	NA
	10/30/2002		None	3.90	25.28	NA
	2/6/2003		None	3.65	25.53	NA
	5/1/2003		None	4.50	24.68	NA
	8/26/2003		None	4.33	24.85	NA
	11/20/2003		None	3.83	25.35	NA
	2/10/2004		None	3.17	26.01	NA
	5/18/2004		None	3.42	25.76	NA
	8/30/2004		None	3.45	25.73	NA
	11/17/2004		None	3.44	25.74	NA
	2/23/2005		**None**	**3.28**	**25.90**	**NA**
MW-10	8/31/1999	29.13	None	9.59	19.54	NA
	11/23/1999		None	9.44	19.69	NA
	3/1/2000		None	9.06	20.07	NA
	5/17/2000		None	9.31	19.82	NA
	8/30/2000		None	9.68	19.45	NA
	12/18/2000		None	9.41	19.72	NA
	3/20/2001		None	9.23	19.90	NA
	6/7/2001		None	9.60	19.53	NA
	9/20/2001		None	9.70	19.43	NA
	12/14/2001		None	8.83	20.30	NA
	2/27/2002		None	9.15	19.98	NA
	5/16/2002		None	9.45	19.68	NA
	9/18/2002		None	9.65	19.48	NA
	10/30/2002		None	9.73	19.40	NA
	2/6/2003		None	9.34	19.79	NA
	5/1/2003		None	9.14	19.99	NA
	8/26/2003		None	9.69	19.44	NA
	11/20/2003		None	9.62	19.51	NA
	2/10/2004		None	9.20	19.93	NA
	5/18/2004		None	9.58	19.55	NA
	8/30/2004		None	9.85	19.28	NA
	11/17/2004		None	9.26	19.87	NA
	2/23/2005		**None**	**8.60**	**20.53**	**NA**

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-11	9/20/2001	28.93	None	4.41	24.52	NA
	12/14/2001		None	1.82	27.11	NA
	2/27/2002		None	2.39	26.54	NA
	5/16/2002		None	2.98	25.95	NA
	9/18/2002		None	4.00	24.93	NA
	10/30/2002		None	4.14	24.79	NA
	2/6/2003		None	2.59	26.34	NA
	5/1/2003		None	2.26	26.67	NA
	8/26/2003		None	3.79	25.14	NA
	11/20/2003		None	3.66	25.27	NA
	2/10/2004		None	2.40	26.53	NA
	5/18/2004		None	3.20	25.73	NA
	8/30/2004		None	4.43	24.50	NA
	11/17/2004		None	2.36	26.57	NA
	2/23/2005		**None**	**2.05**	**26.88**	**NA**
MW-12	9/20/2001	28.68	None	10.41	18.27	NA
	12/14/2001		None	9.62	19.06	NA
	2/27/2002		None	10.09	18.59	NA
	5/16/2002		None	10.04	18.64	NA
	9/18/2002		None	10.66	18.02	NA
	10/30/2002		None	10.62	18.06	NA
	2/6/2003		None	9.97	18.71	NA
	5/1/2003		None	9.78	18.90	NA
	8/26/2003		None	10.70	17.98	NA
	11/20/2003		None	10.53	18.15	NA
	2/10/2004		None	9.80	18.88	NA
	5/18/2004		None	10.13	18.55	NA
	8/30/2004		None	10.32	18.36	NA
	11/17/2004		None	9.91	18.77	NA
	2/23/2005		**None**	**9.29**	**19.39**	**NA**
MW-13	9/20/2001	22.715	None	8.83	13.89	NA
	12/14/2001		None	7.95	14.77	NA
	2/27/2002		None	7.64	15.08	NA
	5/16/2002		None	8.43	14.29	NA
	9/18/2002		6.86	15.09	7.63	13.11
	10/30/2002		6.04	14.29	8.43	13.26
	2/6/2003		0.09	8.25	14.47	14.54
	5/1/2003		0.24	7.29	15.43	15.62
	8/26/2003		0.39	9.70	13.02	13.33
	11/20/2003		0.85	9.85	12.87	13.55
	2/10/2004		0.88	10.59	12.13	12.83
	5/18/2004		0.92	10.70	12.02	12.75
	8/30/2004		1.06	9.36	13.36	14.20
	11/17/2004		0.25	9.74	12.98	13.18
	2/23/2005		**0.07**	**6.49**	**16.23**	**16.28**

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)
W-1	3/2/2000	33.43	None	4.08	29.35	NA
	5/17/2000		None	5.41	28.02	NA
	8/30/2000		None	6.71	26.72	NA
	12/18/2000		None	5.73	27.70	NA
	3/20/2001		None	5.16	28.27	NA
	6/7/2001		None	6.10	27.33	NA
	9/20/2001		None	6.58	26.85	NA
	12/14/2001		None	4.69	28.74	NA
	2/27/2002		None	4.94	28.49	NA
	5/16/2002		None	5.54	27.89	NA
	9/18/2002		None	6.08	27.35	NA
	10/30/2002		None	6.24	27.19	NA
	2/6/2003		None	5.17	28.26	NA
	5/1/2003		None	4.71	28.72	NA
	8/26/2003		None	6.14	27.29	NA
	11/20/2003		None	6.19	27.24	NA
	2/10/2004		None	4.95	28.48	NA
	5/18/2004		None	5.70	27.73	NA
	8/30/2004		None	6.64	26.79	NA
	11/17/2004		None	5.36	28.07	NA
	2/23/2005		**None**	**4.26**	**29.17**	**NA**
W-2	5/17/2000	34.21	None	5.60	28.61	NA
	8/30/2000		None	7.37	26.84	NA
	12/18/2000		None	6.44	27.77	NA
	1/23/2001					abandoned

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)
W-3	5/17/2000	37.46	None	6.38	31.08	NA
	8/30/2000		None	8.16	29.30	NA
	12/18/2000		None	7.19	30.27	NA
	3/20/2001		None	5.70	31.76	NA
	6/7/2001		None	7.51	29.95	NA
	9/20/2001		None	7.83	29.63	NA
	12/14/2001		None	4.76	32.70	NA
	2/27/2002		None	5.32	32.14	NA
	5/16/2002		None	6.45	31.01	NA
	9/18/2002		None	7.10	30.36	NA
	10/30/2002		None	7.30	30.16	NA
	2/6/2003		None	5.69	31.77	NA
	5/1/2003		None	4.97	32.49	NA
	8/26/2003		None	7.52	29.94	NA
	11/20/2003		None	7.58	29.88	NA
	2/10/2004		None	5.63	31.83	NA
	5/18/2004		None	6.20	31.26	NA
	8/30/2004		None	8.39	29.07	NA
	11/17/2004		None	6.57	30.89	NA
	2/23/2005		**None**	**4.24**	**33.22**	**NA**
W-4	3/2/2000	31.72	None	3.34	28.38	NA
	5/17/2000		None	3.86	27.86	NA
	8/30/2000		None	4.99	26.73	NA
	12/18/2000		None	4.20	27.52	NA
	3/20/2001		None	3.75	27.97	NA
	6/7/2001		None	4.67	27.05	NA
	9/20/2001		None	4.80	26.92	NA
	12/14/2001		None	3.22	28.50	NA
	2/27/2002		None	3.58	28.14	NA
	5/16/2002		None	3.89	27.83	NA
	9/18/2002		None	4.24	27.48	NA
	10/30/2002		None	4.56	27.16	NA
	2/6/2003		None	3.67	28.05	NA
	5/1/2003		None	2.61	29.11	NA
	8/26/2003		None	4.47	27.25	NA
	11/20/2003		None	4.42	27.30	NA
	2/10/2004		None	3.54	28.18	NA
	5/18/2004		None	4.11	27.61	NA
	8/30/2004		None	4.85	26.87	NA
	11/17/2004		None	3.81	27.91	NA
	2/23/2005		**None**	**2.97**	**28.75**	**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-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	300	1750	13
MW-1	8/31/1999	310	NA	<1.0	2.4	1	1.6	NA
	11/23/1999	250	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	310	62	<1.0	<1.0	<1.0	<2.0	687
	5/17/2000	390	63	<1.0	<1.0	<1.0	<2.0	74
	8/31/2000	180	<50	<1.0	<1.0	<1.0	<2.0	49
	12/18/2000	310	<50	<1.0	<1.0	<1.0	<2.0	44
	3/21/2001	240	<50	<1.0	<1.0	<1.0	<2.0	17
	6/7/2001	540	<50	<1.0	<1.0	<1.0	<2.0	32
	9/20/2001	290	<50	<1.0	<1.0	<1.0	<2.0	29
	2/27/2002	<250	<50	<1.0	<1.0	<1.0	<2.0	14
	9/18/2002	230	<50	<1.0	<1.0	<1.0	<2.0	30
	2/6/2003	82	<50	<0.5	<0.5	<0.5	<1.0	17
	8/26/2003	200	<50	<0.5	<0.5	<0.5	<1.0	9.8
	2/10/2004	4,800	<50	<0.5	<0.5	<0.5	<1.0	6.6
	8/30/2004	<56	<50	<0.5	<0.5	<0.5	<1.5	4.2
	2/22/2005	<50	<50	<0.5	<0.5	<0.5	<1.0	6.1
MW-2	8/31/1999	180	NA	<1.0	<1.0	<1.0	1.2	NA
	11/23/1999	120	NA	<1.0	<1.0	<1.0	<5.0	NA
	3/1/2000	510	<50	<1.0	<1.0	<1.0	<2.0	81
	5/17/2000	1,100	<50	<1.0	<1.0	<1.0	<2.0	87
	8/31/2000	620	<50	<1.0	<1.0	<1.0	<2.0	65
	12/19/2000	830	<50	<1.0	<1.0	<1.0	<2.0	70
	3/21/2001	900	<50	<2.0	<2.0	<2.0	<4.0	33
	6/7/2001	810	<50	<1.0	<1.0	<1.0	<2.0	43
	9/20/2001	1,200	<50	<1.0	<1.0	<1.0	<2.0	35
	2/27/2002	<250	<50	<1.0	<1.0	<1.0	<2.0	19
	9/18/2002	180	<50	<1.0	<1.0	<1.0	<2.0	17
	2/6/2003	58	<50	<0.5	<0.5	<0.5	<1.0	18
	8/26/2003	150	<50	<0.5	<0.5	<0.5	<1.0	15
	2/11/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	5.2
	8/30/2004	<56	<50	<0.5	<0.5	<0.5	<1.5	6.3
	2/22/2005	<50	<50	<0.5	<0.5	<0.5	<1.0	5.4
MW-3	8/31/1999	2,700	NA	<1.0	<1.0	<1.0	<1.0	NA
	11/23/1999	640	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	620	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	1,800	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	NA	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/21/2001	1,700	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	770	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/21/2001	260	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/27/2002	560	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	340	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/6/2003	<50	<50	<0.5	<0.5	<0.5	<1.0	3.9
	8/26/2003	5,800	<50	<0.5	<0.5	<0.5	<1.0	4.9
	2/11/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	3.4
	8/30/2004	<56	<50	<0.5	<0.5	<0.5	1.5	4
	2/22/2005	<50	<50	<0.5	<0.5	<0.5	<1.0	5.4

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

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	300	1750	13
MW-4	8/31/1999	<50	NA	<1.0	<1.0	<1.0	1.6	NA
	11/23/1999	<50	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	80	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
MW-5	8/31/1999	250	NA	<1.0	<1.0	<1.0	1	NA
	11/23/1999	300	NA	<1.0	<1.0	<1.0	<5.0	NA
	3/1/2000	340	<50	<1.0	<1.0	<1.0	<2.0	100
	5/17/2000	230	<50	<1.0	<1.0	<1.0	<2.0	86
	8/31/2000	220	<50	<1.0	<1.0	<1.0	<2.0	59
	12/18/2000	360	<50	<1.0	<1.0	<1.0	<2.0	57
	3/20/2001	250	<50	<5.0	<5.0	<5.0	<10	87
	6/7/2001	600	<50	<1.0	<1.0	<1.0	<2.0	74
MW-6	8/31/1999	140,000	NA	77	18	31	49	NA
	11/23/1999	6,100	NA	45	14	6.9	48	NA
	3/1/2000	22,000	2800	6.8	<2.0	<2.0	<10	<5.0
	5/17/2000	1,800	6200	77	16	39	37	<5.0
	8/31/2000	76,000	5300	60	13	43	45.7	<5.0
	12/19/2000	6,300	1300	26.0	4.9	8.4	11.5	<5.0
	3/21/2001	5,100	1900	49.0	9.5	13	12	<10
	6/7/2001	14,000	2600	47.0	10	13	19	<10
	9/21/2001	15,000	4000	180	14	24	40	<50
	2/27/2002	43,000	5000	68	16	52	41.8	<25
	9/18/2002	320,000	2000	74	7.3	22	25	<5.0
	2/6/2003	4,300	2600	63	8.2	18	15	<1.0
	8/26/2003	68,000	6500	110	16	44	42	<10
	2/10/2004	19,000	3500	37	4.9	24	15	<5
	8/30/2004	<56	<50	86	7.8	15	27	<5
	2/23/2005	4,300	80	9.0	[illegible]	[illegible]	[illegible]	[illegible]
MW-7	8/31/1999	1,400	NA	<1.0	2.9	2.3	2.7	NA
	11/23/1999	530	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	640	860	<1.0	<1.0	<1.0	<2.0	<20
	5/17/2000	430	410	<1.0	<1.0	<1.0	<2.0	9.5
	8/31/2000	950	1100	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	1,100	820	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	770	1000	<1.0	1.4	<1.0	<2.0	<5.0
	6/7/2001	1,400	870	<1.0	<1.0	<1.0	<2.0	<5.0
	9/21/2001	940	1000	<1.0	<1.0	<2.0	<5.0	<5.0
	2/27/2002	430	930	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	440	870	<1.0	<1.0	<1.0	<2.0	<5.0
	2/6/2003	230	890	<0.5	<0.5	<0.5	<1.0	1.6
	8/26/2003	470	590	<0.5	<0.5	<0.5	<1.0	1.5
	2/11/2004	140	690	<0.5	1.9	0.57	1.0	1.1
	8/30/2004	<56	200	<0.5	<0.5	<0.5	<1.5	1.5
	2/23/2005	290	[illegible]	[illegible]	<0.5	[illegible]	[illegible]	[illegible]

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

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	300	1750	13
MW-8	8/31/1999	230	NA	<1.0	<1.0	1.2	<1.0	NA
	11/23/1999	220	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	260	150	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	660	310	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	460	300	<1.0	<1.0	<1.0	1.4	<5.0
	12/18/2000	370	230	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	1,700	64	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	1,300	180	<1.0	<1.0	<1.0	<2.0	<5.0
MW-9	8/31/1999	2,800	NA	<1.0	<1.0	<1.0	1.1	NA
	11/23/1999	1,300	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	510	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/2000	990	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	1,100	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	1,900	<50	<1.0	<1.0	<1.0	<2.0	5.9
	3/20/2001	1,500	<50	<1.0	<1.0	<1.0	<2.0	5.5
	6/7/2001	590	<50	<1.0	<1.0	<1.0	<2.0	8.1
	9/20/2001	790	<50	<1.0	<1.0	<1.0	<2.0	8.5
	2/27/2002	650	<50	<1.0	<1.0	<1.0	<2.0	9.5
	9/18/2002	480	<50	<1.0	<1.0	<1.0	<2.0	6.2
	2/6/2003	54	<50	<0.5	<0.5	<0.5	<1.0	5.5
	8/26/2003	1,300	<50	<0.5	<0.5	<0.5	<1.0	6.6
	2/10/2004	6,200	250	<0.5	<0.5	<0.5	<1.0	4.4
	8/30/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	3.6
	2/21/2005	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5
MW-10	8/31/1999	1,100	NA	<1.0	1.2	2.0	<1.0	NA
	11/23/1999	1,200	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/2000	1,300	540	<1.0	<1.0	<1.0	<2.0	NA
	5/17/2000	990	460	<1.0	<1.0	<1.0	<2.0	6.9
	8/31/2000	840	320	<1.0	<1.0	<1.0	<2.0	25
	12/18/2000	900	290	<1.0	<1.0	<1.0	<2.0	<9.0
	3/21/2001	620	220	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	1,300	360	<1.0	<1.0	<1.0	<2.0	15
	9/20/2001	1,000	350	<1.0	<1.0	<1.0	<2.0	44
	2/27/2002	610	150	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	850	240	<1.0	1.2	<1.0	<2.0	20
	2/6/2003	510	200	<0.5	<0.5	<0.5	<1.0	2.8
	8/26/2003	1,100	250	<0.5	<0.5	<0.5	<1.0	14
	2/10/2004	260	190	<0.5	<0.5	<0.5	<1.0	1.6
	8/30/2004	310	240	<0.5	<0.5	<0.5	<1.5	6.7
	2/21/2005	340	207	<0.5	<0.5	<0.5	1.4	2.0
MW-11	9/20/2001	460	88	<1.0	<1.0	<1.0	<2.0	<5.0
	12/14/2002	320	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	2/27/2002	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/16/2002	380	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	9/18/2002	250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	10/30/2002	260	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	2/6/2003	250	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	5/1/2003	220	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	8/26/2003	300	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	11/20/2003	77	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	5/18/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	8/30/2004	<56	<50	<0.5	<0.5	<0.5	<1.5	<1.0
	11/17/2004	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	2/21/2005	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5

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

Well	Date	TPH-8015 (diesel)	TPH-8015 (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	300	1750	13
MW-12	9/20/2001	540	960	<1.0	<1.0	<2.0	<5.0	11
	12/14/2002	170	670	<1.0	<1.0	<1.0	<2.0	9.4
	2/27/2002	350	950	<1.0	<1.0	<1.0	<2.0	11
	5/16/2002	500	1100	<1.0	<1.0	<1.0	<2.0	6.7
	9/18/2002	1,600	570	<1.0	<1.0	<1.0	<3.0	7.1
	10/30/2002	440	420	<0.5	<0.5	<0.5	<1.5	<2.5
	2/6/2003	190	340	<0.5	<0.5	<0.5	<1.0	6.8
	5/1/2003	580	950	<2.5	<2.5	3.7	9.0	8.8
	8/26/2003	110	260	<0.5	<0.5	<0.5	<1.0	11
	11/20/2003	100	160	<0.5	<0.5	<0.5	<1.0	8.9
	2/10/2004	210	490	<0.5	0.6	<0.5	<1.0	6.7
	5/18/2004	190	620	<0.5	<0.5	0.8	<1.0	5.6
	8/30/2004	<56	430	<0.5	<0.5	<0.5	<1.5	5.6
	11/17/2004	320	186	<0.5	0.5	0.5	<1.0	10.8
	[illegible]	340	790	3.0	6.2	1.4	[illegible]	5.2
MW-13	9/21/2001	<250	<50	<1.0	<1.0	<1.0	<2.0	7.4
	12/14/2002	160	<50	<1.0	<1.0	<1.0	<2.0	11
	2/27/2002	1,100	450	<1.0	<5.0	<1.0	<2.0	9.9
W-1	5/16/2002	520	150	<1.0	<1.0	<1.0	<2.0	8.7
	3/2/2000	1,800	3400	20.0	5.3	30	23.8	<5.0
	5/17/2000	1,100	7300	35.0	11	59	45	<1.0
	8/31/2000	2,200	6200	20.0	7.9	36	38.2	<10
	12/19/2000	1,700	5600	20.0	8.4	30	35.6	<5.0
	3/20/2001	2,100	7200	32.0	13	56	40	<10
	6/7/2001	2,100	7300	26.0	18	42	38.3	<10
	9/21/2001	1,800	7100	27	<10	48	40	<10
	2/27/2002	1,800	7100	24	9	52	34	<25
	2/6/2003	990	5300	11	4.7	27	24	<1.0
	8/26/2003	1,700	5800	7.5	5.4	24	25	<10
	2/10/2004	940	6000	16.0	4.9	20	21	<1.0
	8/30/2004	<56	2500	8.6	3.6	11	18	<1.30
	[illegible]	910	5900	7.1	12.2	[illegible]	[illegible]	<0.5
W-2	9/18/2002	1,000	5900	11	<22	23	22	<5.0
	5/17/2000	19,000	870	<2.0	<1.0	<2.0	<4.0	<5.0
	8/31/2000	7,400	2200	4.6	2.5	3.8	11	<5.0
W-3	12/19/2000	10,000	290	8.8	3.4	8.6	17.4	<5.0
	5/17/2000	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/18/2000	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/20/2001	630	<50	<1.0	<1.0	<1.0	<2.0	<5.0
W-4	6/7/2001	1,200	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/2/2000	190	<50	1.1	<1.0	<1.0	<2.0	<5.0
	5/17/2000	230	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/2000	240	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	12/19/2000	320	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	3/21/2001	220	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	6/7/2001	430	<50	<1.0	<1.0	<1.0	<2.0	<5.0

Notes:
ppb: parts per billion
TPH: Total Petroleum Hydrocarbons
MTBE: methyl tert butylether
MCL: Maximum Contaminant Level
NA: not analyzed

APPENDIX A

CHAIN-OF-CUSTODY DOCUMENTATION
FIELD DATA SHEETS
CERTIFIED ANALYTICAL REPORTS

North State Labs
CA ELAP# 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

Case Narrative

Client: Cameron-Cole, LLC
Project: AC TRANSIT-EMERYVILLE
Lab No: 05-0262
Date Received: 02/23/05 Date reported: 03/03/05

Eleven water samples were received for the analysis of diesel and gasoline by method 8015B, BTEX and MTBE by method 8021B. All results for QC/QA samples were within acceptance limits. No MS/MSD were analyzed for diesel analysis due to insufficient sample volume submitted; the LCS/LCSD results were reported instead. The nitrate and sulfate analyses were subcontracted to state certified laboratories. All samples that showed the presence of MTBE were analyzed by GC/MS for confirmation. The diesel range hydrocarbons results for samples 05-0262-01, -02, -05 and -10 were positive, but the fuel pattern best matched gasoline. These samples do not show the presence of diesel fuel, and the results reported as diesel range hydrocarbons are due to gasoline range hydrocarbon overlap. Note that for sample 05-0262-08 the diesel result is a mixture of gasoline/diesel hydrocarbons.

John A. Murphy
Laboratory Director

North State Labs
CA ELAP# 1753
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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0262-01 Client ID: MW-10				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	1.0	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	207	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/25/2005
Toluene	SW8020F	0.7	UG/L		02/25/2005
Xylenes	SW8020F	1.3	UG/L		02/25/2005
Diesel Fuel #2	CATFH	**0.31	MG/L		03/02/2005
Sample: 05-0262-02 Client ID: MW-12				02/23/2005	W
Benzene	SW8020F	3	UG/L		02/25/2005
Ethylbenzene	SW8020F	1.4	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	790	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*6.2	UG/L		02/25/2005
Toluene	SW8020F	6.9	UG/L		02/25/2005
Xylenes	SW8020F	4.2	UG/L		02/25/2005
Diesel Fuel #2	CATFH	**0.34	MG/L		03/02/2005
Sample: 05-0262-03 Client ID: MW-11				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	ND<0.5	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005

*Confirmed by GC/MS method 8260B.**See narrative.

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0262-03 Client ID: MW-11				02/23/2005	W
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	ND<0.05	MG/L		03/02/2005
Sample: 05-0262-04 Client ID: MW-9				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*6	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	ND<0.05	MG/L		03/02/2005
Sample: 05-0262-05 Client ID: MW-7				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	283	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*1.1	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	**0.29	MG/L		03/02/2005

*Confirmed by GC/MS method 8260B.**See narrative.

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0262-06 Client ID: MW-2				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*8.4	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	ND<0.05	MG/L		03/02/2005
Sample: 05-0262-07 Client ID: MW-1				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*6.1	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	ND<0.05	MG/L		03/02/2005
Sample: 05-0262-08 Client ID: MW-6				02/23/2005	W
Benzene	SW8020F	7.9	UG/L		02/25/2005
Ethylbenzene	SW8020F	0.9	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	687	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/25/2005
Toluene	SW8020F	2	UG/L		02/25/2005

*Confirmed by GC/MS method 8260B.**See narrative.

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0262-08 Client ID: MW-6				02/23/2005	W
Xylenes	SW8020F	4.3	UG/L		02/25/2005
Diesel Fuel #2	CATFH	**4.93	MG/L		03/02/2005
Sample: 05-0262-09 Client ID: MW-3				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	ND<50	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*5.4	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005
Diesel Fuel #2	CATFH	ND<0.05	MG/L		03/02/2005
Sample: 05-0262-10 Client ID: W-1				02/23/2005	W
Benzene	SW8020F	74.1	UG/L		02/25/2005
Ethylbenzene	SW8020F	64.4	UG/L		02/25/2005
Gasoline Range Organics	SW8020F	3900	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		02/25/2005
Toluene	SW8020F	12.2	UG/L		02/25/2005
Xylenes	SW8020F	48.2	UG/L		02/25/2005
Diesel Fuel #2	CATFH	*1.91	MG/L		03/02/2005

*Confirmed by GC/MS method 8260B.**See narrative.

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005

Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 05-0262-11 Client ID: TRIP BLANK				02/23/2005	W
Benzene	SW8020F	ND<0.5	UG/L		02/25/2005
Ethylbenzene	SW8020F	ND<0.5	UG/L		02/25/2005
Methyl-tert-butyl ether	SW8020F	ND<0.5	UG/L		02/25/2005
Toluene	SW8020F	ND<0.5	UG/L		02/25/2005
Xylenes	SW8020F	ND<1.0	UG/L		02/25/2005

*Confirmed by GC/MS method 8260B.**See narrative.

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C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 05-0262
Client: Cameron-Cole, LLC
Project: AC TRANSIT EMERYVILLE

Date Reported: 03/03/2005
Gasoline,BTEX and MTBE by Methods 8015B/8021B
Diesel Range Hydrocarbons by Method 8015B

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Gasoline Range Organics	SW8020F	50	UG/L	ND	106/113	6
Benzene	SW8020F	0.5	UG/L	ND	72/78	8
Toluene	SW8020F	0.5	UG/L	ND	110/104	6
Ethylbenzene	SW8020F	0.5	UG/L	ND	105/105	0
Xylenes	SW8020F	1.0	UG/L	ND	110/110	0
Methyl-tert-butyl ether	SW8020F	0.5	UG/L	ND	96/95	1
Diesel Fuel #2	CATFH	0.05	MG/L	ND	108/110	2

ELAP Certificate NO:1753
Reviewed and Approved

John A. Murphy, Laboratory Director

R056-08

North State Labs
815 Dubuque Avenue, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.:_____ Page 1 of 1

Client: North State Labs	Report to: Angie Adams	Phone:	Turnaround Time: Std
Mailing Address:	Billing to:	Fax:	
		email:	Date:
		PO# 05-0262	Sampler:

Project / Site Address / Global ID: 05-0262

Analysis Requested

EDF ☐ PDF ☐

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	Nitrate	Sulfate						Field Point ID
MW-10	water	1/P1	—	2-23-05/1110	X	X						R301358
MW-12				/1140	X	X						R301359
MW-11				/1240	X	X						R301360
MW-9				/1325	X	X						R301361
MW-7				/1415	X	X						R301362
MW-2				/1100	X	X						R301363
MW-1				/1130	X	X						R301364
MW-6				/1350	X	X						R301365
MW-3				/1420	X	X						R301366
W-1	↓	↓	↓	/1430	X	X						R301367

Relinquished by: [signature]	Date: 2.24.05	Time: 1600	Received by: Courier (Sealed)	Lab Comments/ Hazards
Relinquished by:	Date: 2-25-05	Time: 1100	Received by: [signature]	
Relinquished by:	Date:	Time:	Received by:	

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# R056-08

QC REPORT

North State Environmental
815 Dubuque Ave
So. SanFrancisco CA 94080

Analyte	Method	Batch #	Dates Analyzed	Orig.	Dupl.	MS %Rec	MSD %Rec		RPD	LCS %Rec	Blank	Comments
Nitrate as NO_3	300.0	IO1076	2/25/05			90.0	90.0	*	0.0		ND	Sample analyte concentration too high to spike.
Sulfate	300.0	IO1077	2/25/05			92.0	92.0	*	0.0		ND	Sample analyte concentration too high to spike.

* LCS/LCSD (see comments)

Rohit Bombaywala
Inorganic Supervisor

Certification # 2585

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # R056-08 **Date: 2/28/05**

North State Environmental
815 Dubuque Ave
So. SanFrancisco CA 94080

Project: 05-0262

PO# 05-0262

Date Rec'd: 2/25/05
Date Started: 2/25/05
Date Completed: 2/28/05

Date Sampled: 2/23/05
Time:
Sampler:

ample ID	Lab ID	RL	Method	Analyte	Results	Units
fW - 10	R301358	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	4.1	mg/L
fW - 12	R301359	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	40	mg/L
fW - 11	R301360	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	1.3	mg/L
fW - 9	R301361	1.0	300.0	Nitrate as NO_3	1.0	mg/L
		1.0	300.0	Sulfate	30	mg/L
fW - 7	R301362	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	21	mg/L
fW - 2	R301363	1.0	300.0	Nitrate as NO_3	4.6	mg/L
		1.0	300.0	Sulfate	48	mg/L
fW - 1	R301364	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	47	mg/L
fW - 6	R301365	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	4.6	mg/L
fW - 3	R301366	1.0	300.0	Nitrate as NO_3	14	mg/L
		1.0	300.0	Sulfate	58	mg/L
V - 1	R301367	1.0	300.0	Nitrate as NO_3	ND	mg/L
		1.0	300.0	Sulfate	ND	mg/L

Rohit Bombaywala
Inorganic Supervisor

Certification # 2585

Donna Keller
Laboratory Director

North State Labs
CA ELAP # 1753
815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

SAMPLE RECEIPT CHECKLIST

Client Name: Cameron-Cole Ref/Subm No: 05-0262 Date: 2/23/05

Checked By: EK

Matrix: Soil: ____ Water: X Other: ____

If Received via Shipment (If dropped off in person this section does not apply):

Carrier Name: ____

Shipping Container/Cooler In Good Condition? Yes: ____ No: ____

Custody Seals Intact on Shipping Container? Yes: ____ No: ____

Custody Seals intact on sample containers? Yes: ____ No: ____ Not Present: X

Chain of Custody present? Yes: X No: ____

Chain of Custody Signatures & Date/Time correct? Yes: ✓ No: ____

Chain of custody agrees with sample labels? Yes: ✓ No: ____

Samples in proper containers? Yes: ✓ No: ____

Sample containers Intact? Yes: ✓ No: ____

Sufficient sample volume for indicated tests? Yes: ✓ No: ____

All Samples received within holding times? Yes: ✓ No: ____

Temperature Blank present? Record Temp if present. Yes: ____ No: ✓ Temp: ____

For water samples- VOAS have zero headspace? Yes: X No: ____ NA: ____

For water samples- pH acceptable on receipt? Yes: ✓ No: ____ NA: ____

pH adjusted - Preservative used: HNO_3: ____ HCl: ____ H_2SO_4: ____ NaOH: ____ ZnOAc: ____
Lot: ____

Corrective Action Record:

Client Contacted: ____ Date Contacted: ____ Person Contacted: ____

Contacted by: ____ Regarding: ____

Comments: ____

Corrective Action: ____

North State Labs

815 Dubuque Avenue, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

05-0262

Chain of Custody / Request for Analysis

Lab Job No.: _____ Page 1 of 2

Client: AC TRANSIT EMERYVILLE	Report to: Emily Waters	Phone: 510-764-3570	Turnaround Time
Mailing Address: 101 W. ATLANTIC AVE BLD#40 ALAMEDA, CA 94501	Billing to: ← SAME	Fax: 510-337-3194	5 DAYS
		email: ewaters@cmerlin.cal.com	Date: 2/23/05
		PO# 2016	Sampler: ME

Project / Site Address / Global ID: AC TRANSIT EMERYVILLE

Analysis Requested

EDF ☐
PDF ☒

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8260 (HS) 2021	EDS GRO	8015 DRO	NITRATE / SULFATE				Field Point ID
1	MW-10	H2O	3 VOA	HCl	2/23/05 / 1110	X							
			3 / VOA	HCl			X						
			2 / AMBER	NA				X					
			1 / POLY	NA					X				
2	MW-12		3 / VOA	HCl	2/23/05 / 1140	X							
			3 / VOA	HCl			X						
			2 / AMBER	NA				X					
			1 / POLY	NA					X				
3	MW-11		3 / VOA	HCl	2/23/05 / 1240	X							
			3 / VOA	HCl			X						
			2 / AMBER	NA				X					
			1 / POLY	NA					X				

Relinquished by: [signature]	Date: 2/23/05	Time: 4:15	Received by: Angie Adams	Lab Comments/ Hazards
Relinquished by: Angie Adams	Date: 2/23/05	Time: 4:50	Received by: [signature]	
Relinquished by:	Date:	Time:	Received by:	

TERMS: NET 30 OAC

05-0262

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.: _____ Page 2 of 2

Client: AC TRANSIT EMERYVILLE	Report to: EMILY WATERS	Phone: 510-764-3510	Turnaround Time: 5 DAYS
Mailing Address: 101 W. ATLANTIC AVE #140 ALAMEDA, CA 94501	Billing to: ← SAME	Fax: 510-337-3994	
		email: EWATERS@CAMBRIDGE.COM	Date: 2/23/05
		PO# 2016	Sampler: M E

Project / Site Address / Global ID: AC TRANSIT EMERYVILLE

Analysis Requested

EDF ☐ PDF ☒

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8021	8015 GRO	8015 DRO	NITRATE / SULFATE				Field Point ID
MW-9	H2O	3/VOA	HCl	2/23/05/1325	X							
		3/VOA	HCl			X						
		2/AMBER	NA				X					
		1/POLY	NA					X				
MW-7	H2O	3/VOA	HCl	2/23/05 1315	X							
		3/VOA	HCl			X						
		2/AMBER	NA				X					
		1/POLY	NA					X				

Relinquished by: Mark Duffy	Date: 2/23/05	Time: 4:15	Received by: Angie Adams	Lab Comments/ Hazards
Relinquished by: Angie Adams	Date: 2/23/05	Time: 4:15	Received by: Ole McDL	
Relinquished by:	Date:	Time:	Received by:	

TERMS: NET 30 OAC

05-0262

North State Labs
815 Dubuque Avenue, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.:_____ Page___of___

Client: AC Transit Emeryville	Report to: Emily Cutes	Phone: 510 769 3520	Turnaround Time: 5 Day
Mailing Address: 10 w. Atlantic Ave Bldg #90	Billing to: SAME	Fax: 510 337 3994	
		email:	Date:
		PO#	Sampler: MD

Project / Site Address / Global ID: AC transit Emeryville

Analysis Requested

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8021B	8015 GRO	8015 DRO	Nitrate/ Sulfate				Field Point ID
	MW-2	~~Water~~	3 VOA	HCl	2-23-05/1100	X							
6		Water	↓	↓			X						
			2 Amber	NA				X					
			1 Poly	↓					X				
	MW-1		3 VOA	HCl	2-23-05/1130	X							
7			↓	↓			X						
			2 Amber	NA				X					
			1 Poly	↓					X				
	MW-6		3 VOA	HCl	2-23-05/1350	X							
8			↓	↓			X						
			2 Amber	NA				X					
			1 Poly	↓					X				

Relinquished by: [signature]	Date: 2/23/05	Time: 4:15	Received by: Angie Adams	Lab Comments/ Hazards
Relinquished by: Angie Adams	Date: 2/23/05	Time: 4:15	Received by: [signature]	
Relinquished by:	Date:	Time:	Received by:	

EDF ☐ PDF ☒

TERMS: NET 30 DAC

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.:_____ Page___of___

Client: AC Transit Emeryville	Report to: Emily Water	Phone: 510 769 3570	Turnaround Time: Std 5days
Mailing Address: 101 W. Atlantic Ave Bldg #90	Billing to: SAME	Fax: 5103373994	Date:
		email:	Sampler: MD/ML
		PO# 2016	

Project / Site Address / Global ID: AC Transit Emeryville

Analysis Requested

EDF ☐ PDF ☒

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8260 GAS	8015 GRO	8015 DRO w/ SG	Nitrate / Sulfate				Field Point ID
9	MW-3	water	3 voa	HCl	2-23-05/ 1420	X							
	↓	↓	↓	↓	↓		X						
	↓	↓	2 Amber	NA	↓			X					
	↓	↓	1 Poly	↓	↓				X				
10	MW-1		3 voa	HCl	2-23-05 1430	X							
	↓	↓	↓	↓	↓		X						
	↓	↓	2 Amber	NA	↓			X					
	↓	↓	1 Poly	↓	↓				X				
11	Trip Blank	↓	3 voa	HCl	2-23-05 1050	X							

Relinquished by: Mark Ohlson	Date: 2/23/05	Time: 4:15	Received by: Angie Adams	Lab Comments/ Hazards
Relinquished by: Angie Adams	Date: 2/23/05	Time: 4:50	Received by:	
Relinquished by:	Date:	Time:	Received by:	

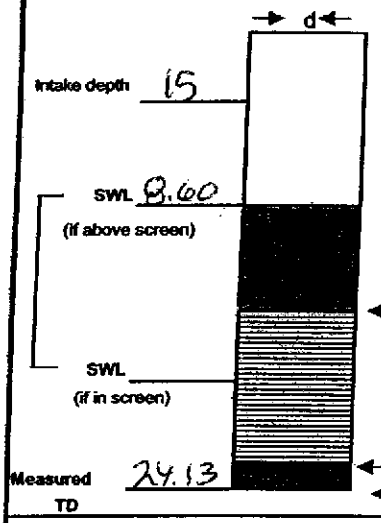
TERMS: NET 30 OAC

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-10

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-05



Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)	D
Start Pump / Begin	1050	0.5	
Stop	1106	↓	
Sampled	1110		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 15.53 ft. = 2.56 gals. X 3 = 7.69

SWL to TD | one volume | purge volume - 3 casing

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 8

Actual volumes purged 3+

Well Yield ⊕ Hy

COC # NA

Sample I.D.	Analysis	ME Lab
MW-10	8260B	↓
↓	NITRATE/SULFATE	
	8015GRO	
↓	8015 DRO	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	22.1	826	7.52	-	DE	0.62 mg/L
2. 4.5	22.2	872	7.53	-	DO	0.52 mg/L
3. 7	22.2	869	7.54	-	ORP	-0.49 mV
4.						
5.						

*Take measurement at approximately each casing volume purged. ⊕ HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharg unable to purge 3 volum

CAMERON-COLE

SAMPLING EVENT DATA SHEET

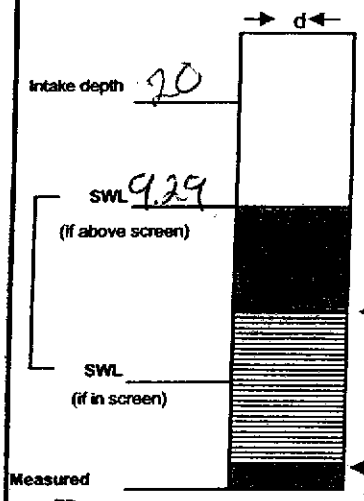
WELL OR LOCATION MW-12

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-09

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1120	0.7	
Stop	1137		
Sampled	1140		
Final fWL			

PURGE CALCULATION

0.165 gal/ft. * ~~11.58~~ 20.58 ft. (SWL to TD) = ~~1.91~~ 3.39 gals. X 3 (one volume) 10.2 ga (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 11

Actual volumes purged 3T

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	Lab
MW-12	8021 BTEX/MTBE	NSL
	8015 TPHGAS	
	8015 TPH DIESEL	
	NITRATE/NITRITE	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 1.5	22.1	736	6.75	-	DO	0.53 mg/L
2. 4	22.2	742	~~6~~.83	-	DO	0.60 mg/L
3. 8	22.3	753	6.84	-	ORP	-0.50 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

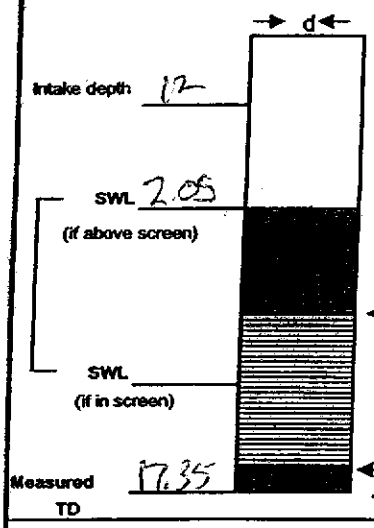
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-11

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-05



Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)	D
Start Pump / Begin	1320	0.5	
Stop	1237		
Sampled	1240		
Final fWL			

PURGE CALCULATION

0.165 gal/ft. * 15.3 ft. (SWL to TD) = 2.5 gals. (one volume) X 3 = 7.5 (purge volume - 3 casing)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 8

Actual volumes purged 3+

Well Yield ⊕ HY

COC # N/A

Additional Comments:

Sample I.D.	Analysis	Lab
MW-11	BOIS GRO	↓
	BZ WD	
	BOIS DRO	
↓	NITRATE/SULFATE	

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	22.2	623	7.05	-	Fe	0.0 mg/L
2. 4	22.1	590	7.10	-	DO	0.04 mg/L
3. 6	22.1	589	7.13	-	ORP	-36 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharg unable to purge 3 volun

CAMERON-COLE

SAMPLING EVENT DATA SHEET

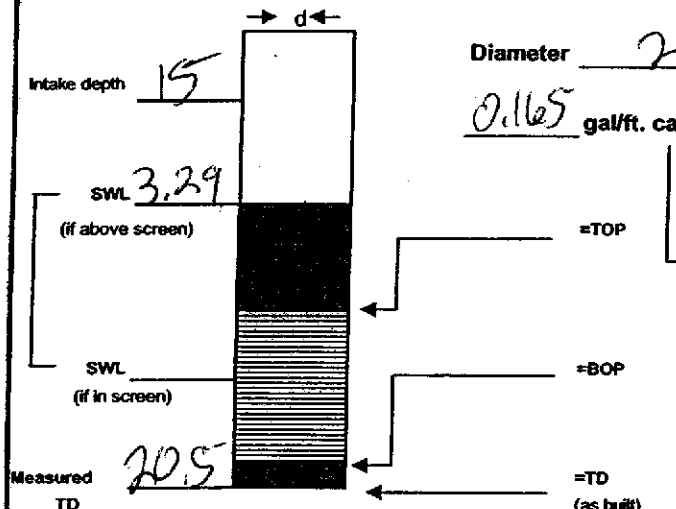
WELL OR LOCATION MW-9

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-09

Well type (MW, EW, PZ, etc.) MW

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1300	0.4	
Stop	1323		
Sampled	1325		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 17.21 ft. (SWL to TD) = 2.8 gals. (one volume) X 3 = 8.5 ga (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 9

Actual volumes purged 3+

Well Yield ⊕ HY

COC # NA

Sample I.D.	Analysis	Lab
MW-9	8015C-DRO	NSL
	8260	
	8015 DRO	
↓	NITRATE/SULFATE	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2.5	22.2	672	7.01	—	Fe	0.4 mg/L
2. 5	22.1	663	7.02	—	DO	32 mg/L
3. 8	22.1	669	7.03	—	ORP	-0.04 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes

CAMERON-COLE

SAMPLING EVENT DATA SHEET

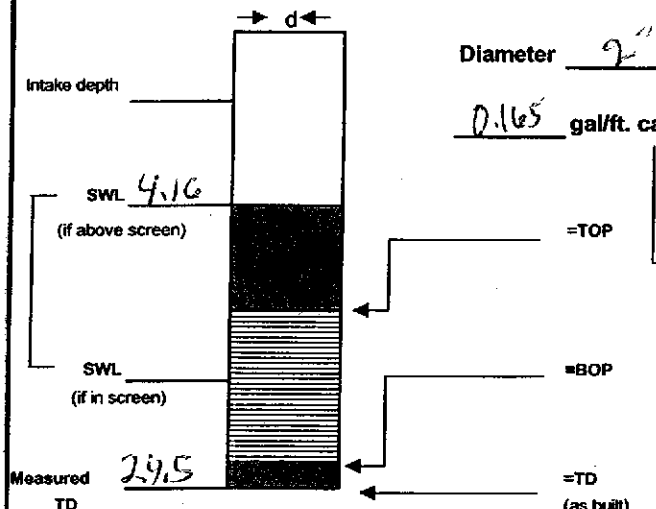
WELL OR LOCATION MW-7

PROJECT AC Trans Emeryville **EVENT** Quarterly **SAMPLER** MD/ME **DATE** 2-23-09

Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1340	0.3	
		↓	
Stop	1414	↓	
Sampled	1415		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 20.34 ft. (SWL to TD) = 3.35 gals. (one volume) X 3 = 10.06 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:
- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 10.2

Actual volumes purged 3T

Well Yield ⊕ LY

COC # NA

Sample I.D.	Analysis	Lab
MW-7	8015C-RO	NSL
↓	8260	↓
	8015 DRO	
	NITRATE / NITRITE	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 3	23.1	721	7.01	-	Fe =	0.02 mg/L
2. 6	23.2	723	7.00	-	DO =	0.52 mg/L
3. 9	23.1	724	6.99	-	ORP =	-32 mV
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

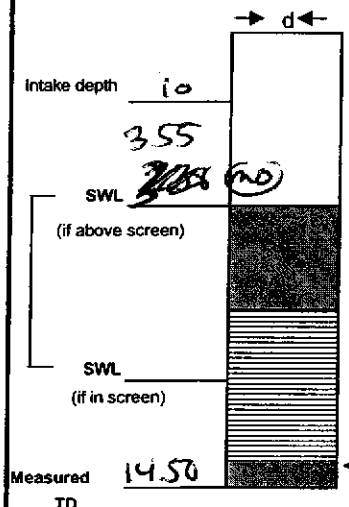
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-1

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-04



Well type (MW, EW, PZ, etc.) MW

Diameter 2"

0.165 gal/ft. casing

=TOP

=BOP

=TD (as built)

ACTION	TIME	PUMP RATE (gpm)	DTW
Start Pump / Begin	1114	0.4	2.50
			3.21
Stop	1124		
Sampled	1130		
Final IWL			

PURGE CALCULATION

0.165 gal/ft. * 10.95 ft. (SWL to TD) = 1.9 gals. (one volume) X 3 = 3.99 gals. (purge volume - 3 casings)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 4.0

Actual volumes purged 3+

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	Lab
MW-1	8021B	N. State
↓	Nitrate	↓

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 11 18/15 gal	21.2	250	7.54	-		Fe 0.05 mg/L
2. 2.5	21.0	240	7.56	-		DO 4.90 mg/L
3. 3.5	21.5	230	7.50	-		ORP -61 mV
4.						
5.						

*Take measurement at approximately each casing volume purged ⊕

HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE

SAMPLING EVENT DATA SHEET

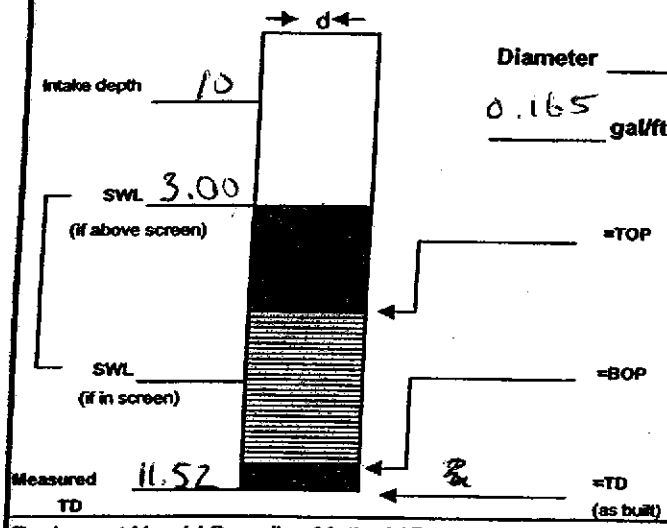
WELL OR LOCATION MW-2

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)
Start Pump / Begin	1043	0.4 3.
	1050	4.0
Stop	1054	
Sampled	1100	
Final IWL		

PURGE CALCULATION

0.165 gal/ft * 8.52 ft. (SWL to TD) = 1.4 gals. (one volume) X 3 = 4.2 (purge volume - 3 c

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 4.5

Actual volumes purged 3+

Well Yield ⊕

COC #

Additional Comments:

Sample I.D.	Analysis	Lab
MW-2	8260 B	N. Stars
↓	Nitrate	↓
Trip Blnk	8260	↓

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. ~~1~~	21.1	525	6.97	—		Fe 0.00 mg
2. 2	21.0	582	7.02	—		Do -218
3. 3	21.2	~~458~~ 468	7.05	—		ORP -76
4.						
5.						

*Take measurement at ⊕ approximately each casing volume purged.

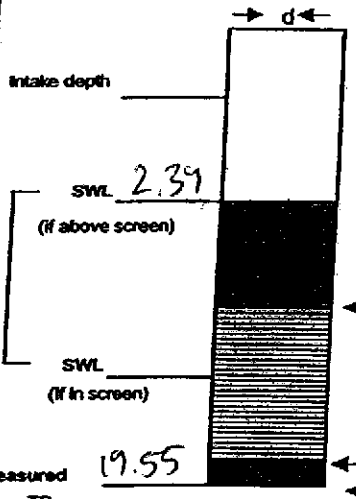
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal rech unable to purge 3 v

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-6

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-04



Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)
Start Pump / Begin	1330	0.8 gpm
Stop	1341	
Sampled	1350	
Final IWL		

PURGE CALCULATION

0.165 gal/ft. * 17.16 ft. (SWL to TD) = 2.8 gals. (one volume) X 3 = 8.5 (purge volume - 3 c)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 9.0

Actual volumes purged 3+

Well Yield ⊕ H

COC #

Sample I.D.	Analysis	Lab
MW-6	8021B	N Stat
	8015 GRO	
	8015 DRO	
	W. trak Sulfate	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1. 2	20.3	700	7.01	-		Fe 0.
2. 4	20.4	690	7.05	-		DO -5
3. 6	20.1	650	7.07	-		ORP -7
4.						
5.						

*Take measurement at approximately each casing volume purged. ⊕ HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal rec unable to purge 3 v

CAMERON-COLE

SAMPLING EVENT DATA SHEET

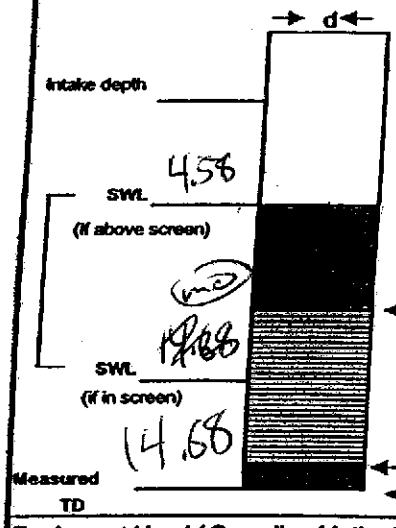
WELL OR LOCATION MW-3

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-04

Well type MW (MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing



ACTION	TIME	PUMP RATE (gpm)
Start Pump / Begin	1406	0.5
Stop	1416	
Sampled	1420	
Final IWL		

PURGE CALCULATION

0.165 gal/ft. * 10.1 ft. (SWL to TD) = 1.6 gals. (one volume) X 3 = 4.9 (purge volume)

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 5.0

Actual volumes purged 3+

Well Yield ⊕ HY

COC #

Sample I.D.	Analysis	La
MW-3	8021 B	N Std
	8015 DRO	
	8015 GRO	
↓	N. Inorg. Sulfate	↓

Additional Comments:

	Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other	
1.	1	20.8	610	7.21	—		
2.	2	21.1	590	7.15	—		
3.	3	20.9	570	7.11	—		
4.							
5.							

*Take measurement at ⊕ approximately each casing volume purged.

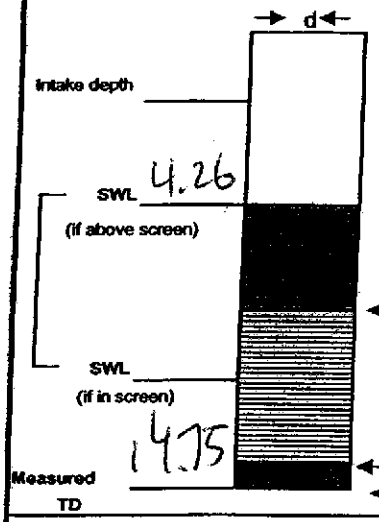
HY-Minimal W.L. drop MY - WL drop - able to purge 3 volumes during one sitting by reducing pump rate or cycling pump LY - Able to purge 3 volumes by returing later or next day. VLY - Minimal unable to purge

CAMERON-COLE

SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-1

PROJECT AC Trans Emeryville EVENT Quarterly SAMPLER MD/ME DATE 2-23-04



Well type MW
(MW, EW, PZ, etc.)

Diameter 2"

0.165 gal/ft. casing

ACTION	TIME	PUMP RATE (gpm)
Start Pump / Begin	1015	0.5
Stop	1025	
Sampled	1430	
Final IWL		

PURGE CALCULATION

0.165 gal/ft. * 10.6 ft. (SWL to TD) = 1.7 gals. (one volume) X 3 = 5.2 purge volume - 3 casing

2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.

Equipment Used / Sampling Method / Decription of Event:

- Cent. Pump used to purge
- Disp. Bailer used to sample

Actual gallons purged 5.5

Actual volumes purged 3+

Well Yield ⊕ H4

COC #

Sample I.D.	Analysis	Lab
MW-1	8021	N Stat
	8015 GRO	
	8015 DRO	
	Nitrate/Sulfate	

Additional Comments:

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
1. 1	21.1	640	7.29	—	
2. 2	20.8	641	7.21	—	
3. 3	21.2	635	7.18	—	
4.					
5.					

*Take measurement at ⊕ approximately each casing volume purged.

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