



Alameda-Contra Costa Transit District

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Alameda County
Environmental Health

May 22, 2009

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

Dear Mr. Plunkett:

Subject: Groundwater Monitoring Report – March 2009
AC Transit, 1100 Seminary Ave., Oakland

AC Transit hereby submits the enclosed groundwater monitoring report for the AC Transit facility located at 1100 Seminary Avenue in Oakland. The report was prepared by our consultant, Cameron-Cole, and contains the results of groundwater monitoring performed on March 26, 2009, from six on-site monitoring wells.

Sampling results indicate that diesel was present in samples collected from three of the six wells sampled at concentrations of 167 ppb (MW-1), 169,000 ppb (MW-2) and 380 ppb (MW-3). Gasoline was detected in the same three wells at concentrations of 1,510 ppb (MW-1), 36,900 ppb (MW-2) and 1,160 ppb (MW-3). Chemical concentrations in excess of Maximum Contaminant Levels (MCLs) were limited to benzene in wells MW-1, MW-2 and MW-3 and toluene, ethylbenzene and xylenes in well MW-2.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

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

Sincerely,


Suzanne Chaewsky, P.E.
Environmental Engineer

enclosure

**MONITORING REPORT
FOR THE AC TRANSIT FACILITY
LOCATED AT 1100 SEMINARY AVENUE,
OAKLAND, CALIFORNIA**

May 2009

Prepared For:

Ms. Sue Chaewsky
AC Transit
10626 E. 14th Street
Oakland, California 94603



Prepared By:

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



CAMERON-COLE

Project No: 2036

**MONITORING REPORT
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CAMERON-COLE

Dennis C. Baker

Written By
Dennis Baker
Environmental Specialist

Brad Wright

Approved By
Brad Wright, RG, CHG
Principle Hydrogeologist

A circular professional seal for Bradley D. Wright, a Registered Geologist in the State of California. The seal includes the text "STATE OF CALIFORNIA REGISTERED GEOLOGIST", the number "#6276", the expiration date "Exp. 4/10", and the name "BRADLEY D. WRIGHT REGISTERED GEOLOGIST".

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INTRODUCTION

This report presents the results of the March 2009 sampling event for the AC Transit facility located at 1100 Seminary Avenue, Oakland, California (Figure 1). Cameron-Cole performed groundwater sampling of monitor wells MW-1 through MW-3 and MW-9 through MW-11, in accordance with directives from the Alameda County Health Care Services Agency (ACHCS).

OBJECTIVES AND SCOPE OF WORK

Work performed during quarterly monitoring included measuring depth to water and presence of free phase hydrocarbons in the monitor wells and collecting groundwater samples. Field parameters collected during sampling included pH, temperature, electric conductivity, dissolved oxygen (DO), ferrous iron (Fe^{2+}) and oxygen reduction potential (ORP). Groundwater samples were collected for laboratory analysis using United States Environmental Protection Agency (USEPA) Method 8015 Modified with silica gel cleanup for total petroleum hydrocarbons (TPH) as diesel, USEPA Method 8260B for gasoline and benzene, toluene, ethylbenzene, and xylene (BTEX) and methyl tertiary butyl ether (MTBE), methods of chemical analysis for water and waste (MCAWW) 300.0A for nitrate and sulfate, and USEPA 6010B for iron.

Chain-of-custody documents and certified analytical reports are presented in Appendix A. Field data sheets are included in Appendix B.

Groundwater Elevations and Flow Direction

Prior to purging and sample collection, all six site monitor wells were measured for free phase hydrocarbon layers and depth to groundwater. Depth to groundwater measurements shown in Table 1 were used to construct the groundwater elevation contours shown in Figure 2. As shown, groundwater flow is to the west at a gradient of 0.003 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, DO, ORP, Fe²⁺ and temperature were monitored using calibrated field meters.

Monitor well MW-2 was being purged of ten casing volumes monthly and during all quarterly sampling events to expedite the removal of free phase hydrocarbons from the vicinity of the well. However, it has not had a recordable layer of product since November 2006, with this event confirming the lack of a product layer. Therefore, it will now be purged and sampled like the other monitor wells.

Groundwater samples were transferred to appropriate laboratory supplied and preserved 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 8260B.

Groundwater Analytical Results

Table 2 presents first quarter 2009 and historic analytical results of groundwater testing. Concentrations of benzene above the State of California maximum contaminant level (MCL) of 1.0 micrograms per liter (ug/l) were detected in monitor wells MW-1, MW-2, and MW-3. Toluene was detected above the MCL of 150 ug/l in monitor well MW-2. Ethylbenzene was detected above the MCL of 300 ug/l in monitor well MW-2. TPH-gasoline was detected above the reporting limit in monitor wells MW-1, MW-2, and MW-3. TPH-diesel was detected above the reporting limit in wells MW-1, MW-2, and MW-3. No analytes were detected in the trip blanks or method blanks. A lab control spike and lab control spike duplicate passed the USEPA's criteria for acceptance.

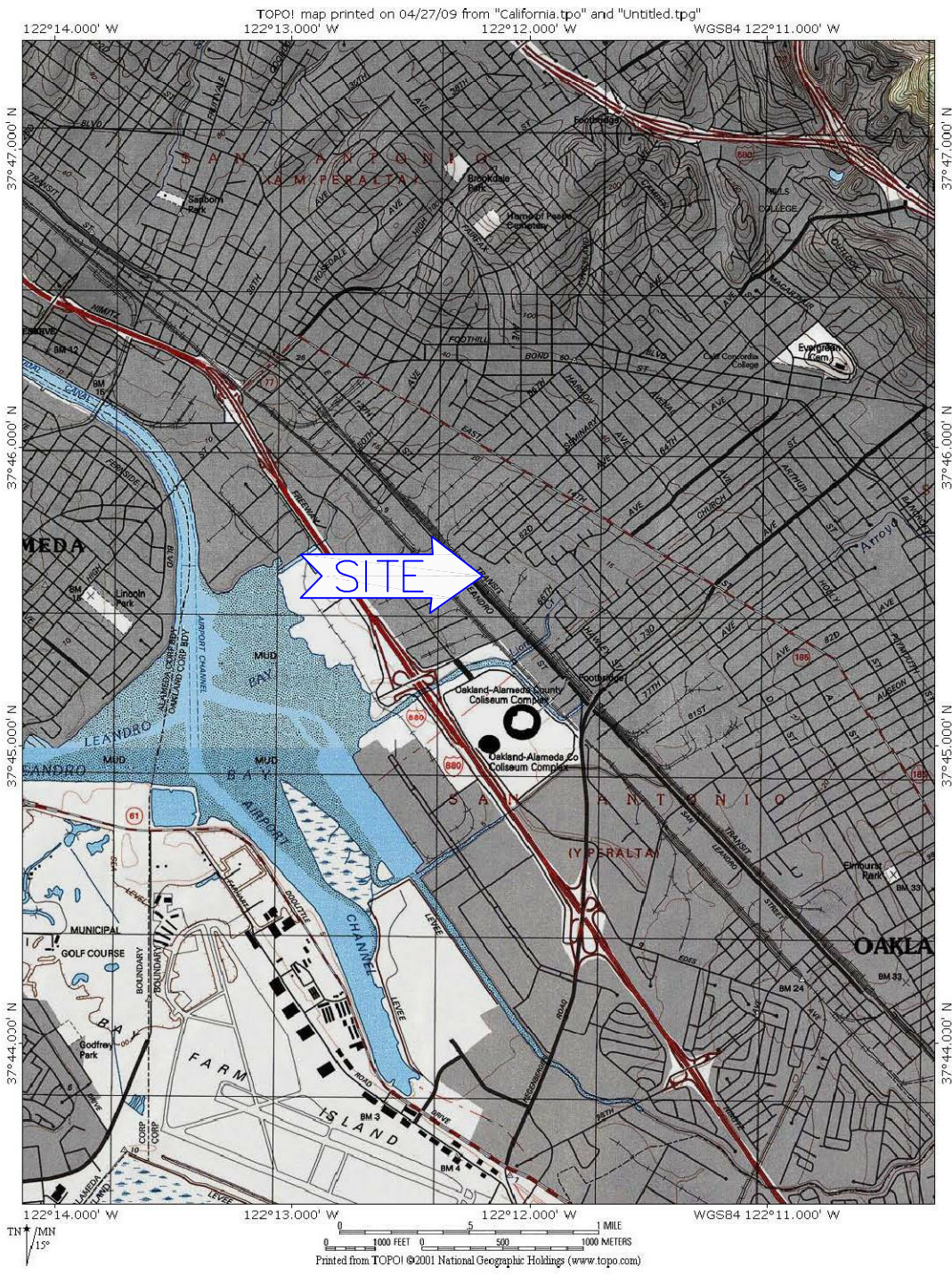
SUMMARY OF RESULTS

- Groundwater flow direction is towards the west at a gradient of 0.003 feet/foot.
- Chemical concentrations in excess of MCLs were limited to benzene in wells MW-1, MW-2, and MW-3, and toluene, ethylbenzene, and xylenes in well MW-2.
- Gasoline was found to be present in groundwater samples taken from wells MW-1 (1,510 ug/l), MW-2 (36,900 ug/l), and MW-3 (1,160 ug/l).
- Diesel was found to be present in groundwater samples taken from MW-1, MW-2 and MW-3 at concentrations of 167 ug/l, 169,000 ug/l, and 380 ug/l, respectively.
- The free phase product level previously measured in well MW-2 has not been detected since the second quarter 2002.

PROJECTED WORK AND RECOMMENDATIONS

Because of the consistency of quarterly groundwater monitoring data collected since February 2000, it was recommended that the groundwater monitoring program be modified to a semi-annual schedule. Additionally, due to the quantity and consistency of natural attenuation data collected, analysis of iron, ORP, DO, Nitrate, and Sulfate will be discontinued. To date ACHCS has not commented on this recommendation. Quarterly monitoring will continue until ACHCS provides authorization to proceed with semi-annual monitoring.

Figures

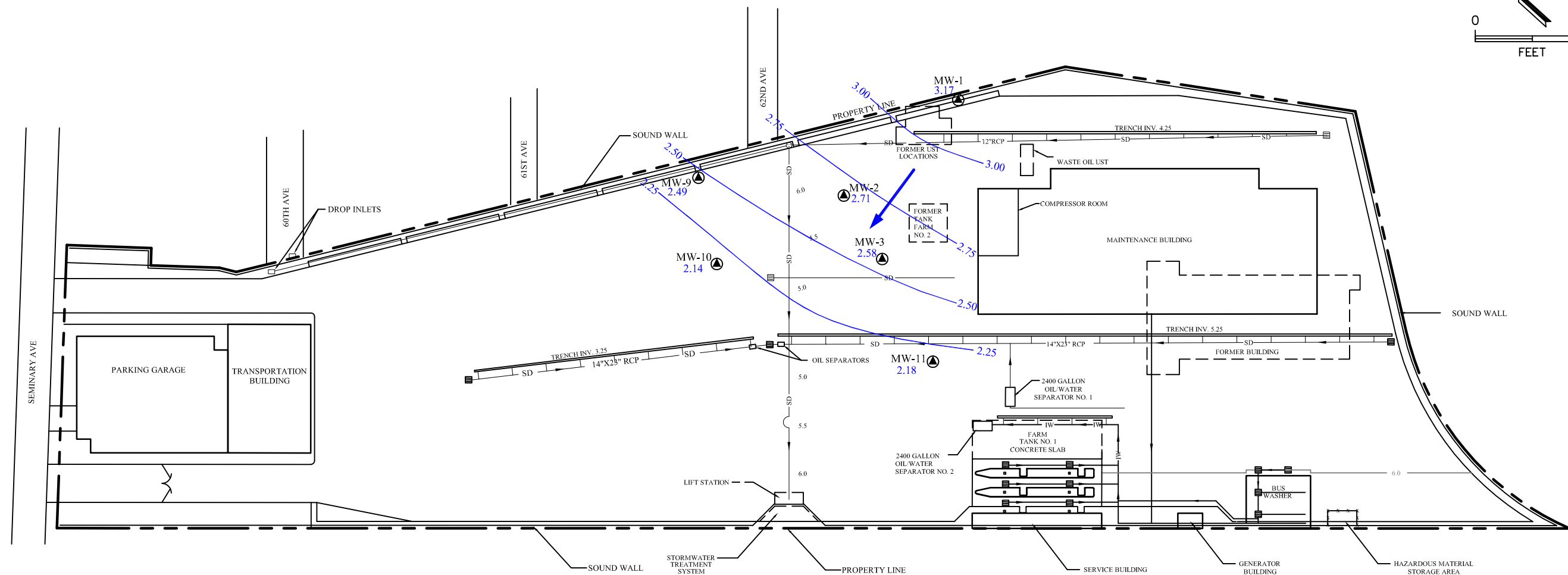
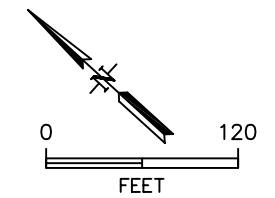


2036-001A



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FIGURE 1	
SITE LOCATION MAP AC TRANSIT – SEMINARY OAKLAND, CALIFORNIA	
SCALE:	DATE:
AS NOTED	4-28-09



LEGEND

- 3.0 — GROUNDWATER ELEVATION CONTOUR ▲ EXISTING MONITORING WELL
- 2.18 — GROUNDWATER ELEVATION (FT. MSL) ☉ MANHOLE
- REPORTED GROUNDWATER FLOW ☐ CATCH BASIN
- SD — STORM DRAIN PIPELINE — SURFACE DRAINAGE TRENCH
- IW — INDUSTRIAL WASTE PIPELINE

BY	DATE
DRAWN SPS	4/28/09
CHECKED	
APPROVED	
APPROVED	
APPROVED	



FIGURE 2

AC TRANSIT - OAKLAND, CALIFORNIA

1100 SEMINARY ROAD-POTENTIOMETRIC SURFACE MAP

MARCH 2009

SCALE: 1" = 120'	DWG. NO.: 2036-002A
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Tables

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	Top of Casing Elevation (ft-msl)*	Product Thickness (feet)	DTW (feet)	Measured Groundwater Elevation (ft- msl)	Groundwater Elevation Corrected for Product Thickness** (ft-msl)
MW-1	1/7/1999	6.25	None	5.13	1.12	
	2/7/2000		None	3.75	2.5	
	5/25/2000		None	3.69	2.56	
	8/22/2000		None	4.79	1.46	
	11/20/2000		None	4.92	1.33	
	3/1/2001		None	2.75	3.50	
	5/14/2001		None	3.67	2.58	
	7/26/2001		None	4.73	1.52	
	10/16/2001		None	5.35	0.90	
	2/21/2002		None	3.30	2.95	
	5/29/2002		None	3.70	2.55	
	9/17/2002		None	4.85	1.40	
	11/14/2002		None	4.59	1.66	
	2/5/2003		None	3.37	2.88	
	5/14/2003		None	3.17	3.08	
	8/22/2003		None	4.52	1.73	
	11/20/2003		None	4.61	1.64	
	2/9/2004		None	3.05	3.20	
	5/25/2004		None	3.22	3.03	
	8/16/2004		None	4.65	1.60	
	11/18/2004		None	3.81	2.44	
	2/22/2005		None	2.62	3.63	
	5/5/2005		None	3.44	2.81	
	10/9/2005***		None	4.75	1.50	
	5/28/2006***		None	3.50	2.75	
	11/13/2006***		None	4.00	2.25	
	5/27/2007***		None	3.61	2.64	
	11/10/2007***		None	3.30	2.95	
	5/24/2008***		None	3.76	2.49	
			3/26/2009		None	3.08
MW-2	1/7/1999	5.53	2.27	6.91	-1.38	0.44
	6/8/1999		2.23	5.83	-0.3	1.48
	6/9/1999		0	3.9	1.63	1.63
	6/10/1999		0	3.9	1.63	1.63
	6/15/1999		0.42	3.92	1.61	1.95
	7/8/1999		0.2	4.3	1.23	1.39
	2/7/2000		Sheen	3.8	1.73	
	5/25/2000		0.12	3.23	2.3	2.40
	8/22/2000		0.23	4.45	1.08	1.10
	11/20/2000		0.23	4.70	0.83	0.85
	3/1/2001		0.13	2.75	2.78	2.79
	5/14/2001		Sheen	3.30	2.23	
	7/26/2001		None	3.27	2.26	
	10/16/2001		0.02	5.25	0.28	0.28
	2/21/2002		0.01	3.32	2.21	2.21
	5/29/2002		0.02	2.98	2.55	2.55
	9/17/2002		None	4.83	0.70	
	11/14/2002		None	5.43	0.10	
	2/5/2003		None	3.85	1.68	
	5/14/2003		None	2.94	2.59	
	8/22/2003		None	4.20	1.33	
	11/20/2003		None	4.68	0.85	
	2/9/2004		None	2.94	2.59	
	5/25/2004		None	2.90	2.63	
	8/16/2004		None	4.30	1.23	
	11/18/2004		None	4.67	0.86	
	2/22/2005		None	5.48	0.05	
	5/5/2005		None	3.02	2.51	
	10/9/2005***		0.083	6.91	-1.38	-1.37
	5/28/2006***		0.1	3.45	2.08	2.09
11/13/2006***	None	2.60	2.93			
5/27/2007***	None	3.30	2.23			
11/10/2007***	None	3.10	2.43			
5/24/2008***	None	3.36	2.17			
	3/26/2009		None	2.82	2.71	

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	Top of Casing Elevation (ft-msl)*	Product Thickness (feet)	DTW (feet)	Measured Groundwater Elevation (ft- msl)	Groundwater Elevation Corrected for Product Thickness** (ft-msl)
MW-3	1/7/1999	4.76	None	4.11	0.65	
	2/7/2000		None	3.1	1.66	
	5/25/2000		None	2.41	2.35	
	8/22/2000		None	3.45	1.31	
	11/20/2000		None	3.42	1.34	
	3/1/2001		None	2.00	2.76	
	5/14/2001		None	2.64	2.12	
	7/26/2001		None	3.17	1.59	
	10/16/2001		None	3.97	0.79	
	2/21/2002		None	2.20	2.56	
	5/29/2002		None	2.52	2.24	
	9/17/2002		None	3.65	1.11	
	11/14/2002		None	3.47	1.29	
	2/5/2003		None	2.19	2.57	
	5/14/2003		None	2.12	2.64	
	8/22/2003		None	3.25	1.51	
	11/20/2003		None	3.40	1.36	
	2/9/2004		None	2.06	2.70	
	5/25/2004		None	2.10	2.66	
	8/16/2004		None	3.36	1.40	
	11/18/2004		None	2.68	2.08	
	2/22/2005		None	1.90	2.86	
	5/5/2005		None	2.38	2.38	
	10/9/2005***		None	3.36	1.40	
	5/28/2006***		None	2.32	2.44	
	11/13/2006***		None	3.00	1.76	
	5/27/2007***		None	2.45	2.31	
	11/10/2007***		None	2.70	2.06	
	5/24/2008***		None	2.65	2.11	
			3/26/2009		None	2.18
MW-9	2/7/2000	5.8	None	4.37	1.43	
	5/25/2000		None	4.95	0.85	
	8/22/2000		None	5.18	0.62	
	11/20/2000		None	4.70	1.10	
	3/1/2001		None	3.03	2.77	
	5/14/2001		None	4.56	1.24	
	7/26/2001		None	5.17	0.63	
	10/16/2001		None	5.19	0.61	
	2/21/2002		None	4.79	1.01	
	5/29/2002		None	4.07	1.73	
	9/17/2002		None	4.94	0.86	
	11/14/2002		None	4.87	0.93	
	2/5/2003		None	3.88	1.92	
	5/14/2003		None	3.77	2.03	
	8/22/2003		None	4.73	1.07	
	11/20/2003		None	4.46	1.34	
	2/9/2004		None	3.23	2.57	
	5/25/2004		None	3.53	2.27	
	8/16/2004		None	4.20	1.60	
	11/18/2004		None	3.91	1.89	
2/22/2005	None	2.75	3.05			
5/5/2005	None	3.21	2.59			
10/9/2005***	None	4.45	1.35			
5/28/2006***	None	3.33	2.47			
11/13/2006***	None	4.35	1.45			
5/27/2007***	None	3.75	2.05			
11/10/2007***	None	4.25	1.55			
5/24/2008***	None	4.05	1.75			
	3/26/2009		None	3.31	2.49	

**TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC Transit Facility
1100 Seminary Avenue, Oakland, California**

Well	Date	Top of Casing Elevation (ft-msl)*	Product Thickness (feet)	DTW (feet)	Measured Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected for Product Thickness** (ft-msl)
MW-10	2/7/2000	4.65	None	3.19	1.46	
	5/25/2000		None	3.11	1.54	
	8/22/2000		None	4.35	0.30	
	11/20/2000		None	4.18	0.47	
	3/1/2001		None	3.14	1.51	
	5/14/2001		None	3.27	1.38	
	7/26/2001		None	3.95	0.70	
	10/16/2001		None	4.57	0.08	
	2/21/2002		None	3.29	1.36	
	5/29/2002		None	3.30	1.35	
	9/17/2002		None	4.11	0.54	
	11/14/2002		None	3.86	0.79	
	2/5/2003		None	3.36	1.29	
	5/14/2003		None	3.23	1.42	
	8/22/2003		None	4.52	0.13	
	11/20/2003		None	3.56	1.09	
	2/9/2004		None	2.51	2.14	
	5/25/2004		None	2.90	1.75	
	8/16/2004		None	3.90	0.75	
	11/18/2004		None	2.52	2.13	
	2/22/2005		None	2.66	1.99	
	5/5/2005		None	3.18	1.47	
	10/9/2005***		None	3.88	0.77	
	5/28/2006***		None	2.78	1.87	
11/13/2006***	None	3.70	0.95			
5/27/2007***	None	3.15	1.50			
11/10/2007***	None	3.20	1.45			
5/24/2008***	None	3.20	1.45			
	3/26/2009		None	2.51	2.14	
MW-11	2/7/2000	4.19	None	4.97	-0.78	
	5/25/2000		None	7.58	-3.39	
	8/22/2000		None	3.01	1.18	
	11/20/2000		None	2.88	1.31	
	3/1/2001		None	1.91	2.28	
	5/14/2001		None	4.49	-0.3	
	7/26/2001		None	2.95	1.24	
	10/16/2001		None	3.35	0.84	
	2/21/2002		None	1.85	2.34	
	5/29/2002		None	2.36	1.83	
	9/17/2002		None	3.11	1.08	
	11/14/2002		None	2.55	1.64	
	2/5/2003		None	2.75	1.44	
	5/14/2003		None	1.98	2.21	
	8/22/2003		None	2.86	1.33	
	11/20/2003		None	2.73	1.46	
	2/9/2004		None	2.60	1.59	
	5/25/2004		None	2.06	2.13	
	8/16/2004		None	2.91	1.28	
	11/18/2004		None	2.75	1.44	
	2/22/2005		None	3.06	1.13	
	5/5/2005		None	2.89	1.3	
	10/9/2005***		None	3.04	1.15	
	5/28/2006***		None	1.30	2.89	
11/13/2006***	None	2.30	1.89			
5/27/2007***	None	2.20	1.99			
11/10/2007***	None	1.60	2.59			
5/24/2008***	None	2.31	1.88			
	3/26/2009		None	2.01	2.18	

Notes:

* ft-msl: feet-mean sea level

** used 0.8 specific gravity of product

DTW: Depth to Water

*** Essel Technology Services, Inc. data.

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-1	1/7/1999	<100	470	NA	17.0	2	31.0	18	<50	150	3,400	360	53
	2/7/2000	390	<60	1,300	13.0	<10	<10	<10	<20	<50	1,200	1,220	11,800
	5/25/2000	<50	<50	1,000	12.0	<1.0	<1.0	<1.0	<2.0	140	1,500	1,950	1,380
	8/22/2000	<50	<50	600	6.3	<1.0	2.3	<1.0	<2.0	75	2,100	6,850	2,350
	11/20/2000	<50	<50	630	2.8	<1.0	1.1	<1.0	<2.0	<50	4,500	11,210	1,170
	3/1/2001	<50	<50	900	29.0	1.2	16.0	6	<2.0	<50	2,800	6,020	2,920
	5/14/2001	<50	<50	540	4.1	<1.0	3.1	<1.0	<2.0	<50	2,500	13,970	1,870
	7/26/2001	190	<50	500	<1.0	<1.0	<1.0	<1.0	<2.0	75	3,700	8,480	1,950
	10/16/2001	<50	<50	650	16.0	1.1	4.6	1.6	<2.0	<50	3,600	9,480	2,560
	2/21/2002	560	<50	550	21	1.0	19	15	<2.0	<50	3,000	5,890	2,200
	5/29/2002	130	<50	510	<1.0	<1.0	<1.0	<1.0	<2.0	<50	2,300	6,820	1,300
	9/17/2002	140	<50	330	<1.0	<1.0	<1.0	<1.0	<2.0	<50	5,200	5,840	>3300
	11/14/2002	150	570	NA	4.8	0.57	2.7	1.1	<1.0	<200	12,000	4,720	>3300
	2/5/2003	250	210	NA	16.0	<0.5	0.93	<1.0	<1.0	<200	6,500	5,630	>3300
	5/14/2003	220	<50	NA	9.9	<0.5	1.6	<1.0	<1.0	<200	5,200	3,280	2,750
	8/22/2003	150	770	NA	<0.5	<1.0	<1.0	<1.0	<1.0	<200	6,300	2,980	2,570
	11/20/2003	300	320	NA	3.0	<0.5	0.56	<1.0	<1.0	<200	7,900	3,030	2,680
	2/9/2004	210	370	NA	<0.5	0.50	0.52	<1.0	<1.0	<200	7,000	4,190	>3300
	5/26/2004	470	<50	NA	5.0	<0.5	7.2	1.9	<1.0	<200	2,400	3,780	>3300
	8/16/2004	75	<50	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	11,000	4,120	2,560
	11/18/2004	207	200	NA	6.8	<0.5	2.80	1.0	<0.5	<200	14,000	50	2,840
	2/22/2005	325	170	NA	17.3	<0.5	3.80	5.0	<0.5	<200	7,600	3,040	2,750
	5/5/2005	512	670	NA	47.2	1.2	42.4	18.9	<0.5	ND	32,000	5,250	3,300
	10/9/2005*	2,800	840	NA	200.0	5.0	85.0	26.0	<5.0	<100	6,600	4,190	2,300
	5/29/2006*	1,900	580	NA	33.0	4.3	23.0	16.0	<5.0	<100	46,000	3,740	2,200
	11/13/2006*	<50	230	NA	<0.5	<0.5	<0.5	<0.5	<5.0	180	3,000	3,270	1,200
	5/27/2007*	1,400	4,700	NA	46.0	5.5	7.4	8.8	<15	<100	7,900	120	3,270
11/10/2007*	<50	1,900	NA	<0.5	<0.5	<0.5	<0.5	<5.0	760	3,900	2,820	0	
5/25/2008*	1,200	550	NA	3.9	5.4	2.2	1.5	<5.0	<100	1,200	460	3,300	
3/26/2009	1,510	167	NA	32.4	<5.0	40.4	<10	<5.0	<100	4,600	40	21,600	

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-2	6/8/1999	11,000	434,000	117,000	1,000,000	<100,000	260,000	<300,000	<5,000,000	NA	NA	NA	NA
	2/7/2000	51,000	160,000	<5000	19,000	<500	920	<500	<1000	51	<1000	6,660	7,300
	5/25/2000	<1200	<50000	65,000	11,000	<500	670	530	<1000	330	<1000	5,670	0
	8/22/2000	<2500	<2500	150,000	23,000	<500	1,100	1,100	<1000	370	<1000	4,530	3,680
	11/20/2000	<1200	<25000	430,000	18,000	<500	840	610	<1000	<250	<500	1,700	3,300
	3/3/2001	<500	<25000	610,000	14,000	<830	<830	<830	<1700	<250	<5000	7,880	3,300
	5/14/2001	<1000	280,000	51,000	19,000	240	1,100	1,200	<330	<50	<1000	3,330	>3300
	7/26/2001	54,000	590,000	<25000	19,000	<500	1,300	1,500	<1000	<50	<1000	9,960	>3300
	10/16/2001	43,000	560,000	<25000	18,000	280	1,100	1,300	<100	<50	1,500	17,630	>3300
	2/21/2002	46,000	180,000	<12000	18,000	<500	950	1,500	<1000	<100	<2000	3,650	>3300
	5/29/2002	49,000	130,000	<5000	17,000	350	970	1,700	<500	<50	1,000	2,220	>3300
	9/17/2002	60,000	<25000	470,000	21,000	<500	1,600	2,700	<1000	<50	<1000	4,270	>3300
	11/14/2002	36,000	490,000	NA	14,000	280	970	2,200	<400	<200	<500	6,050	>3300
	2/5/2003	47,000	28,000	NA	15,000	360	1,200	2,100	<100	<200	<500	6,940	>3300
	5/14/2003	39,000	200,000	NA	13,000	370	1,000	2,000	<100	<200	<500	2,140	>3300
	8/22/2003	43,000	480,000	NA	22,000	490	1,500	2,100	<400	<200	<500	1,960	>3300
	11/20/2003	59,000	320,000	NA	22,000	<100	1,700	3,200	<200	<200	<500	2,100	>3300
	2/9/2004	19,000	55,000	NA	5,400	160	800	1,800	<100	<200	1,200	4,730	>3300
	5/26/2004	60,000	520,000	NA	22,000	410	1,700	2,800	<250	<200	<500	4,520	>3300
	8/16/2004	63,000	42,000	NA	20,000	520	1,600	2,400	<250	<200	<2500	3,560	>3300
	11/18/2004	38,200	126,000	NA	21,900	430	1,400	3,700	<2.5	<200	<500	330	3,300
	2/22/2005	55,200	42,000	NA	26,400	389	2,020	3,430	<50	2,000	<500	1,350	>3300
	5/5/2005	38,600	18,300	NA	8,060	177	1,200	2,310	<50	ND	470	5,200	3,300
	10/9/2005*	42,000	12,000	NA	19,000	<250	1,300	1,800	<250	<100	170	3,610	2,670
	5/29/2006*	20,000	170,000	NA	5,900	88	190	660	<170	<100	730	4,230	2,600
	11/13/2006*	3,000	7,200	NA	560	13	46	140	<80	150	67,000	2,040	2,000
5/27/2007*	6,900	45,000	NA	1,800	28	110	270	<130	<100	200	140	3,300	
11/10/2007*	19,000	14,000	NA	5,800	79	360	660	<500	<100	270	720	3,260	
5/25/2008*	33,000	5,900	NA	9,100	170	700	880	<250	<100	660	2,080	2,270	
3/26/2009	36,900	169,000	NA	15,000	229	841	854	<200	<100	740	3,050	3,280	

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-3	1/7/1999	199	2,680	NA	450	<10	250	190	<500	170	3,300	880	0
	2/7/2000	2,000	<150	3,100	26	<2	5	2	<4	<50	47,300	6,480	17,800
	5/25/2000	<50	<50	1,000	35	<1.0	6	4	<2.0	<50	21,700	4,640	600
	8/22/2000	<50	<50	2,400	240	<10	<10	<10	<20	<50	19,300	3,970	20
	11/20/2000	<50	<50	2,400	<25	<25	<25	<25	<50	<50	26,500	4,120	20
	3/1/2001	<50	<50	1,200	100	<5.0	8.3	<5.0	<10	<50	27,000	1,510	50
	5/14/2001	<50	<50	860	8.4	<1.0	1.2	<1.0	<2.0	<50	21,100	9,800	0
	7/26/2001	1,200	<50	790	140	<5.0	12	<5.0	<10	<50	18,700	8,650	80
	10/16/2001	1,000	<50	1,600	5.1	<1.0	4.3	<1.0	<2.0	<50	29,800	11,360	640
	2/21/2002	1,700	<50	990	200	<10	29.0	12	<20	<50	20,500	5,730	0
	5/29/2002	630	<50	840	68	<1.0	4.2	3.3	<2.0	<50	14,300	5,870	1,070
	9/17/2002	<50	<50	1,100	4.1	<1.0	1.8	1.0	<2.0	<50	17,000	6,820	2,820
	11/14/2002	2,800	460	NA	200	1.1	28	9.0	<2.0	<200	19,000	9,780	1,210
	2/5/2003	720	270	NA	55	<0.5	20	7.1	<1.0	<200	22,000	8,320	>3300
	5/14/2003	540	130	NA	18	<0.5	3.6	1.0	<1.0	<200	19,000	8,460	1,980
	8/22/2003	400	540	NA	2.7	<1.0	1.6	<1.0	<1.0	<200	18,000	6,620	190
	11/20/2003	240	520	NA	8.8	<0.5	2.2	<1.0	<1.0	<200	16,000	5,820	100
	2/9/2004	700	700	NA	5.6	<0.5	3.8	1.3	<1.0	<200	17,000	4,080	0
	5/26/2004	700	<100	NA	83.0	<0.5	11.0	1.7	<1.0	<200	18,000	4,210	0
	8/16/2004	440	<500	NA	6.0	<0.5	1.6	<1.0	<1.0	<200	14,000	3,960	100
	11/18/2004	728	230	NA	44.8	1.1	14.9	8.4	<0.5	<200	11,000	850	300
	2/22/2005	3,480	390	NA	1130	1.9	174	89.4	<0.5	<200	5,300	1,910	300
	5/5/2005	2,920	670	NA	1,360	2.8	199	100	<0.5	ND	13,000	3,860	3,300
	10/9/2005*	8,400	1,400	NA	4,500	<100	330	<100	<100	<100	4,700	3,290	230
	5/29/2006*	340	330	NA	6.2	1.3	<0.5	1.1	<5.0	<100	9,500	1,970	300
	11/13/2006*	410	170	NA	2.7	2.1	1.2	1.0	<5.0	<100	18,000	3,310	670
	5/27/2007*	600	620	NA	15	<0.5	15	4.7	<10	<100	10,000	720	1,570
11/10/2007*	330	600	NA	16	0.8	7.6	1.4	<5.0	<100	8,000	590	NM	
5/25/2008*	810	1,300	NA	84	1.1	21	5.4	<5.0	<100	1,200	530	1,370	
3/26/2009	1,160	380	NA	19.0	<1.0	19.2	3.7	<1.0	<100	4,000	2,040	2,510	

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-9	2/7/2000	<50	<50	240	<1	<1	<1	<1	<2	230	183,000	6,940	9,000
	5/25/2000	<50	<50	130	<1.0	<1.0	<1.0	<1.0	<2.0	250	172,000	6,020	1,200
	8/22/2000	<50	<50	120	<1.0	<1.0	<1.0	<1.0	<2.0	280	157,000	7,250	0
	20-Nov-00	<50	<50	130	<1.0	<1.0	<1.0	<1.0	<2.0	340	147,000	9,690	0
	3/1/2001	<50	<50	150	<1.0	<1.0	<1.0	<1.0	<2.0	230	116,000	4,210	0
	5/14/2001	<50	<50	110	<1.0	<1.0	<1.0	<1.0	<2.0	100	140,000	8,290	0
	7/26/2001	<50	<50	71	<1.0	<1.0	<1.0	<1.0	<2.0	130	143,000	7,560	0
	10/16/2001	<50	<50	120	<1.0	<1.0	<1.0	<1.0	<2.0	89	141,000	967	50
	2/21/2002	<50	<50	89	<1.0	<1.0	<1.0	<1.0	<2.0	94	137,000	3,500	70
	5/29/2002	<50	<50	95	<1.0	<1.0	<1.0	<1.0	<2.0	94	141,000	4,590	90
	9/17/2002	<50	<50	96	<1.0	<1.0	<1.0	<1.0	<2.0	100	143,000	3,860	2,130
	11/14/2002	<50	82	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	130,000	10,120	670
	2/5/2003	<50	82	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	140,000	8,630	2,870
	5/14/2003	<50	140	NA	<0.5	<0.5	<0.5	<1.0	1.3	<200	130,000	8,760	2,570
	8/22/2003	<50	220	NA	<0.5	<1.0	<1.0	<1.0	<1.0	<200	140,000	6,140	0
	11/20/2003	<50	80	NA	<0.5	<0.5	<0.5	<1.0	1.8	<200	140,000	6,030	200
	2/9/2004	<50	65	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	98,000	5,800	0
	5/26/2004	<50	<250	NA	<0.5	<0.5	<0.5	<1.5	<1.0	<200	88,000	5,200	0
	8/16/2004	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	1.3	<200	100,000	4,960	0
	11/18/2004	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	2.8	<200	110,000	1,040	0
	2/22/2005	<50	<0.5	NA	<0.5	<0.5	<0.5	<1.0	1.5	<200	101,000	1,220	0
	5/5/2005	<50	190	NA	1.1	<0.5	<0.5	<1.0	1.6	ND	130,000	5,000	0
	10/9/2005*	<50	87	NA	2.8	<0.5	<0.5	<0.5	1.2	<100	180,000	2,870	300
	5/29/2006*	<50	1,100	NA	<0.5	<0.5	<0.5	<0.5	<0.5	120	91,000	1,360	0
	11/13/2006*	<50	56	NA	<0.5	<0.5	<0.5	<0.5	<0.5	170	110,000	70	1,550
	5/27/2007*	<50	170	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	110,000	1,570	1,570
	11/10/2007*	<50	1,300	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	14,000	970	1,260
5/25/2008*	<50	250	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	85,000	750	1,290	
3/26/2009	<50	<990	NA	<1.0	<1.0	<1.0	<2.0	1.2	<100	105,000	2,840	11,000	

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ANALYTICAL RESULTS OF GROUNDWATER SAMPLES (ppb)
AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-10	2/7/2000	<50	<50	470	<1	<1	<1	<1	<2	53	114,000	1,200	55,000
	5/25/2000	<50	<50	220	<1.0	<1.0	<1.0	<1.0	<2.0	480	136,000	1,940	0
	8/22/2000	<50	<50	140	<1.0	<1.0	<1.0	<1.0	<2.0	69	126,000	4,350	0
	11/20/2000	<50	<50	300	<1.0	<1.0	<1.0	<1.0	<2.0	<50	76,200	3,790	0
	3/1/2001	<50	<50	250	<1.0	<1.0	<1.0	<1.0	<2.0	<250	106,000	7,440	0
	5/14/2001	<50	<50	74	<1.0	<1.0	<1.0	<1.0	<2.0	<50	135,000	6,790	0
	7/26/2001	<50	<50	120	<1.0	<1.0	<1.0	<1.0	<2.0	<50	125,000	9,680	1,970
	10/16/2001	<50	<50	190	<1.0	<1.0	<1.0	<1.0	<2.0	<50	90,100	28,000	570
	2/21/2002	<50	<50	190	<1.0	<1.0	<1.0	<1.0	<2.0	<50	77,700	4,280	0
	5/29/2002	<50	<50	110	<1.0	<1.0	<1.0	<1.0	<2.0	<50	126,000	7,230	270
	9/17/2002	<50	<50	170	<1.0	<1.0	<1.0	<1.0	<2.0	<50	107,000	4,230	>3300
	11/14/2002	<50	270	NA	<0.5	<0.5	<0.5	<1.0	1.5	<200	64,000	1,680	1,400
	2/5/2003	<50	160	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	110,000	5,260	>3300
	5/14/2003	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	93,000	2,990	1,720
	8/22/2003	<50	320	NA	<0.5	<1.0	<1.0	<1.0	<1.0	<200	120,000	1,950	0
	11/20/2003	<50	300	NA	<0.5	<0.5	<0.5	<1.0	1.7	<200	65,000	1,750	0
	2/9/2004	<50	250	NA	<0.5	<0.5	<0.5	<1.0	1.1	<200	110,000	1,650	0
	5/26/2004	<500	<50	NA	<0.5	<0.5	<0.5	<1.5	<1.0	<200	160,000	1,630	0
	8/16/2004	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	120,000	2,840	0
	11/18/2004	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	0.9	<200	86,000	660	0
	2/22/2005	<50	<50	NA	1.0	<0.5	<0.5	<1.0	0.9	2,000	106,000	1,570	0
	5/5/2005	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	<0.5	ND	130,000	1,620	0
	10/9/2005*	<50	<50	NA	0.92	<0.5	<0.5	<0.5	0.66	<100	120,000	3,850	870
	5/29/2006*	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	110,000	1,590	0
	11/13/2006*	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	97,000	490	1,040
	5/27/2007*	<50	550	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	100,000	230	1,160
	11/10/2007*	<50	130	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	97,000	1,050	20
5/25/2008*	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	62,000	870	1,870	
3/26/2009	<50	<100	NA	<1.0	<1.0	<1.0	<2.0	<1.0	<100	66,900	4,000	292	

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AC Transit Facility
1100 Seminary Avenue, Oakland, California

Well	Date	TPH-G	TPH-D	TPH	Benzene	Toluene	Ethyl		MTBE	Nitrate	Sulfate	DO	Fe
							Benzene	Xylenes					
		MCL (ug/l)			1.0	150	300	1,750	13				
MW-11	2/7/2000	<50	<50	400	<1	<1	<1	<1	25	800	167,000	7,300	16,200
	5/25/2000	<50	<50	200	<1.0	<1.0	<1.0	<1.0	16	480	207,000	6,540	0
	8/22/2000	<50	<50	170	<1.0	<1.0	<1.0	<1.0	9.3	610	168,000	4,640	20
	11/20/2000	<50	<50	190	<1.0	<1.0	<1.0	<1.0	7.5	550	143,000	2,380	0
	3/1/2001	<50	<50	250	<1.0	<1.0	<1.0	<1.0	15.0	170	80,300	5,860	0
	5/14/2001	<50	<50	160	<1.0	<1.0	<1.0	<1.0	14.0	230	103,000	6,060	2,910
	7/26/2001	<50	<50	220	5.9	<1.0	<1.0	2.7	20.0	180	71,300	7,360	>3300
	10/16/2001	<50	<50	170	<1.0	<1.0	<1.0	<1.0	12.0	190	101,000	8,810	>3300
	2/21/2002	<50	<50	170	<1.0	<1.0	<1.0	<1.0	2.2	110	75,600	4,280	0
	5/29/2002	<50	<50	290	<1.0	<1.0	<1.0	<1.0	2.3	140	98,700	8,350	0
	9/17/2002	<50	<500	1,900	<1.0	<1.0	<1.0	<1.0	3.8	54	141,000	6,260	90
	11/14/2002	<50	740	NA	0.88	<0.5	<0.5	1.2	5.3	<200	120,000	8,380	0
	2/5/2003	<50	410	NA	<0.5	<0.5	<0.5	<1.0	3.4	<200	8,800	9,590	0
	5/14/2003	<50	<50	NA	<0.5	<0.5	<0.5	<1.0	2.5	<200	91,000	1,560	1,960
	8/22/2003	<50	540	NA	<0.5	<1.0	<1.0	<1.0	2.2	<200	130,000	2,210	1,720
	11/20/2003	<50	290	NA	<0.5	<0.5	<0.5	<1.0	1.8	<200	120,000	2,300	1,910
	2/9/2004	<50	270	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	120,000	10,400	0
	5/26/2004	<50	<50	NA	<0.5	<0.5	<0.5	<1.5	<1.0	<200	140,000	10,100	0
	8/16/2004	<50	100	NA	<0.5	<0.5	<0.5	<1.0	<1.0	<200	130,000	8,610	0
	11/18/2004	70	<50	NA	3.3	<0.5	0.80	1.7	0.7	<200	120,000	900	300
	2/22/2005	114	<5.0	NA	<0.5	<0.5	2.20	3.9	<0.5	<200	122,000	3,850	310
	5/5/2005	<50	<50	NA	<0.5	0.60	<0.5	<1.0	<0.5	ND	130,000	760	0
	10/9/2005*	<50	82	NA	3.0	<0.5	<0.5	0.57	0.83	<100	130,000	1,870	640
	5/29/2006*	<50	150	NA	2.9	<0.5	<0.5	<0.5	<0.5	<100	120,000	3,730	310
	11/13/2006*	<50	150	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<100	150,000	2,700	NM
	5/27/2007*	<50	330	NA	1.8	<0.5	<0.5	<0.5	<0.5	<100	130,000	1,420	3,000
11/10/2007*	110	890	NA	19	<0.5	2.5	4.0	<0.5	<100	160,000	3,150	60	
5/25/2008*	300	790	NA	52	1.5	9.5	11	<10	<100	110,000	4,840	1,760	
3/26/2009	<50	<95	NA	<1.0	<1.0	<1.0	<2.0	4.1	<100	134,000	9,450	531	

Notes:

ug/l: micrograms per liter

TPH-G: total petroleum hydrocarbons as gasoline

TPH-D: total petroleum hydrocarbons as diesel

TPH: total petroleum hydrocarbons as motor oil or unknown hydrocarbon

MCL: Maximum Contaminant Level

MTBE: Methyl-tert-butylether

DO: Dissolved Oxygen

Fe: Ferrous Iron

NA: Not Analyzed

* Essel Technology Services, Inc. data.

APPENDIX A

CERTIFIED ANALYTICAL REPORTS

CHAIN-OF-CUSTODY DOCUMENTS



Technical Report for

Cameron-Cole

T0600102158-AC Transit Seminary, Oakland, CA

2076.002

Accutest Job Number: C4944

Sampling Date: 03/26/09

Report to:

Cameron-Cole

dbaker@cameron-cole.com

ATTN: Dennis Baker

Total number of pages in report: **65**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.



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Sample Summary

Cameron-Cole

Job No: C4944

T0600102158-AC Transit Seminary, Oakland, CA
 Project No: 2076.002

Sample Number	Collected		Matrix Received	Code	Type	Client Sample ID
	Date	Time By				
C4944-1	03/26/09	10:30 DCDB	03/27/09	AQ	Trip Blank Water	TB-01
C4944-2	03/26/09	12:35 DCDB	03/27/09	AQ	Ground Water	MW-10
C4944-3	03/26/09	13:25 DCDB	03/27/09	AQ	Ground Water	MW-2
C4944-4	03/26/09	14:00 DCDB	03/27/09	AQ	Ground Water	MW-9
C4944-5	03/26/09	14:25 DCDB	03/27/09	AQ	Ground Water	MW-1
C4944-6	03/26/09	14:45 DCDB	03/27/09	AQ	Ground Water	MW-11
C4944-7	03/26/09	15:10 DCDB	03/27/09	AQ	Ground Water	MW-3

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Cameron-Cole

Job No C4944

Site: T0600102158-AC Transit Seminary, Oakland, CA

Report Date 4/10/2009 9:59:58 AM

6 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/26/2009 and were received at Accutest on 03/27/2009 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of C4944. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: VW176
------------------	------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) C4950-1MS, C4950-1MSD were used as the QC samples indicated.

Matrix AQ	Batch ID: VW177
------------------	------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D1928-4MS, D1928-4MSD were used as the QC samples indicated.

Matrix AQ	Batch ID: VW178
------------------	------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) C4945-7MS, C4945-7MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8015B M

Matrix AQ	Batch ID: OP829
------------------	------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix AQ	Batch ID: OP832
------------------	------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010B

Matrix AQ	Batch ID: MP1030
------------------	-------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) C4944-2MS, C4944-2MSD, C4944-2SDL were used as the QC samples for metals.

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix AQ	Batch ID: GP606
------------------	------------------------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) C4944-2MS, C4944-2MSD were used as the QC samples for Nitrogen, Nitrate, Sulfate.
- Matrix Spike Recovery(s) for Sulfate are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Matrix AQ	Batch ID: GP611
------------------	------------------------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) C4951-3MS, C4951-3MSD were used as the QC samples for Sulfate.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis

Report of Analysis

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3

Client Sample ID: TB-01		Date Sampled: 03/26/09
Lab Sample ID: C4944-1		Date Received: 03/27/09
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5170.D	1	03/31/09	BD	n/a	n/a	VW176
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		60-130%
2037-26-5	Toluene-D8	96%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MW-10		Date Sampled: 03/26/09
Lab Sample ID: C4944-2		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5183.D	1	03/31/09	BD	n/a	n/a	VW176
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		60-130%
2037-26-5	Toluene-D8	97%		60-130%
460-00-4	4-Bromofluorobenzene	100%		60-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MW-10		Date Sampled: 03/26/09
Lab Sample ID: C4944-2		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8015B M SW846 3510C		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4686.D	1	03/31/09	JH	03/30/09	OP829	GGG179
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
	TPH (> C28-C40)	ND	0.20	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	77%		45-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-10	
Lab Sample ID: C4944-2	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	292	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-10	
Lab Sample ID: C4944-2	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 15:40	RL	EPA 300/SW846 9056A
Sulfate	66.9	2.5	mg/l	5	03/31/09 11:39	RL	EPA 300/SW846 9056A

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: C4944-3		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5254.D	200	04/02/09	BD	n/a	n/a	VW178
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	15000	200	ug/l	
108-88-3	Toluene	229	200	ug/l	
100-41-4	Ethylbenzene	841	200	ug/l	
1330-20-7	Xylene (total)	854	400	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	200	ug/l	
	TPH-GRO (C6-C10)	36900	10000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		60-130%
2037-26-5	Toluene-D8	102%		60-130%
460-00-4	4-Bromofluorobenzene	93%		60-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: C4944-3		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8015B M SW846 3510C		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4733.D	200	04/01/09	JH	03/31/09	OP832	GGG180
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	169	19	mg/l	
	TPH (> C28-C40)	ND	38	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
630-01-3	Hexacosane	77%		45-140%	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 03/26/09
Lab Sample ID: C4944-3	Date Received: 03/27/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	3280	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2		Date Sampled: 03/26/09
Lab Sample ID: C4944-3		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 16:33	RL	EPA 300/SW846 9056A
Sulfate	0.74	0.50	mg/l	1	03/27/09 16:33	RL	EPA 300/SW846 9056A

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-9		
Lab Sample ID: C4944-4		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5253.D	1	04/02/09	BD	n/a	n/a	VW178
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.2	1.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		60-130%
2037-26-5	Toluene-D8	102%		60-130%
460-00-4	4-Bromofluorobenzene	93%		60-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

34
3

Client Sample ID: MW-9		Date Sampled: 03/26/09
Lab Sample ID: C4944-4		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8015B M SW846 3510C		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4734.D	10	04/01/09	JH	03/31/09	OP832	GGG180
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.99	mg/l	
	TPH (> C28-C40)	5.37	2.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	76%		45-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-9	
Lab Sample ID: C4944-4	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	11000	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-9	Date Sampled: 03/26/09
Lab Sample ID: C4944-4	Date Received: 03/27/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 16:50	RL	EPA 300/SW846 9056A
Sulfate	105	5.0	mg/l	10	03/31/09 11:57	RL	EPA 300/SW846 9056A

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: C4944-5		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5255.D	5	04/02/09	BD	n/a	n/a	VW178
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	32.4	5.0	ug/l	
108-88-3	Toluene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	40.4	5.0	ug/l	
1330-20-7	Xylene (total)	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
	TPH-GRO (C6-C10)	1510	250	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		60-130%
2037-26-5	Toluene-D8	103%		60-130%
460-00-4	4-Bromofluorobenzene	94%		60-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: C4944-5		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8015B M SW846 3510C		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4705.D	1	03/31/09	JH	03/31/09	OP832	GGG180
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28) ^a	0.167	0.095	mg/l	
	TPH (> C28-C40)	0.434	0.19	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
630-01-3	Hexacosane	83%		45-140%	

(a) Higher boiling gasoline compounds in Diesel range (C10-C14).

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1	
Lab Sample ID: C4944-5	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	21600	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-1		Date Sampled: 03/26/09
Lab Sample ID: C4944-5		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 17:08	RL	EPA 300/SW846 9056A
Sulfate	4.6	0.50	mg/l	1	03/27/09 17:08	RL	EPA 300/SW846 9056A

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-11		
Lab Sample ID: C4944-6		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5184.D	1	03/31/09	BD	n/a	n/a	VW176
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.1	1.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		60-130%
2037-26-5	Toluene-D8	97%		60-130%
460-00-4	4-Bromofluorobenzene	99%		60-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-11		Date Sampled: 03/26/09
Lab Sample ID: C4944-6		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8015B M SW846 3510C		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4706.D	1	03/31/09	JH	03/31/09	OP832	GGG180
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.095	mg/l	
	TPH (> C28-C40)	ND	0.19	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	77%		45-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-11	
Lab Sample ID: C4944-6	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	531	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-11		
Lab Sample ID: C4944-6		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 18:01	RL	EPA 300/SW846 9056A
Sulfate	134	5.0	mg/l	10	03/31/09 12:14	RL	EPA 300/SW846 9056A

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3		
Lab Sample ID: C4944-7		Date Sampled: 03/26/09
Matrix: AQ - Ground Water		Date Received: 03/27/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W5185.D	1	03/31/09	BD	n/a	n/a	VW176
Run #2	W5204.D	1.67	04/01/09	BD	n/a	n/a	VW177

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	19.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	19.2	1.0	ug/l	
1330-20-7	Xylene (total)	3.7	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
	TPH-GRO (C6-C10)	1160 ^a	84	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	98%	60-130%
2037-26-5	Toluene-D8	96%	97%	60-130%
460-00-4	4-Bromofluorobenzene	100%	99%	60-130%

(a) Result is from Run# 2

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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3

Client Sample ID: MW-3		Date Sampled: 03/26/09
Lab Sample ID: C4944-7		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8015B M SW846 3510C		
Project: T0600102158-AC Transit Seminary, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4737.D	4	04/01/09	JH	03/31/09	OP832	GGG180
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.38	mg/l	
	TPH (> C28-C40)	2.47	0.76	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	65%		45-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3	
Lab Sample ID: C4944-7	Date Sampled: 03/26/09
Matrix: AQ - Ground Water	Date Received: 03/27/09
	Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	2510	50	ug/l	1	03/30/09	03/31/09 MF	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA594

(2) Prep QC Batch: MP1030

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3		Date Sampled: 03/26/09
Lab Sample ID: C4944-7		Date Received: 03/27/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Project: T0600102158-AC Transit Seminary, Oakland, CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	03/27/09 18:18	RL	EPA 300/SW846 9056A
Sulfate	4.0	0.50	mg/l	1	03/27/09 18:18	RL	EPA 300/SW846 9056A

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

3334 Victor Court, Santa Clara, CA 95054
(408) 588-0200 FAX: (408) 588-0201

CCCAA1842

FED-EX Tracking # _____ Bottle Order Control # _____
 Accutest Quote # _____ Accutest NC Job # _____ C4944

Client/Reporting Information: Company Name: Cameron - Cole
 Project Information: Project Name: AC Seminary

Address: 101 W. Atlantic Ave #410
 City: Alameda CA 94501
 Project Contact: Shawn Summi
 Phone #: 510 769 3579
 Samplers Name: DC, DB

Requested Analysis: Gas, BTEX, MIBz, 8Z6, Diesel/motor oil 5015M, MIBz/sulfate 300.0, Iron 6010B

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	IG	NOH	HNO3	H2SO4	NO2	NaHSO4	MEDH	ENCLOSURE	8280 Full List	8280 Includes BTEX/TEH/EEB/DPE/TAME/1,2,4-DCA/EDB	8270 PAHs only	TPH-Extractable - Diesel - Motor Oil - Other	METALS: CAN-170 LUFT-90 RCRA-80 13E	Pesticides-001	BTEX-MBE-TPH as Gasoline by GC/PIB-FID	Matrix Codes
-1	TB-01	3/26/09	1030	DC	GW	7	3															WW- Water GW- Ground Water SW- Surface Water SO- Soil OI- Oil WP- Wipe LIQ - Non-aqueous Liquid AIR DW- Drinking Water (Perchlorate Only)
-2	MW-10		1235	DB					1	3												
-3	MW-2		1325	DC																		
-4	MW-9		1400	DB																		
-5	MW-1		1425	DC																		
-6	MW-11		1445	DB																		
-7	MW-3		1610	DC																		

Turnaround Time (Business days): Std. 15 Business Days, 10 Day (Workload dependent), 5 Day (Workload dependent), 3 Day (125% markup), 2 Day (150% markup), 1 Day (200% markup), Same Day (300% markup)

Approved By/Date: _____

Data Deliverable Information: Commercial "A", Commercial "B", EDF for Geotracker, EDD Format. Provide EDF Global ID: T660102158

Comments / Remarks: 3 vials each (VHCL), 2 lit Ambers each N/P, 250ml poly each N/P, 250ml poly each (HNO3), Cooler #1: 2.1°C; Cooler #2: 3.6°C

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by	Date/Time	Received By	Date/Time	Relinquished by	Date/Time	Received By	Date/Time
1	3/27/09 0845	2	3/27/09	3	3/27/09	4	3/27/09
3		4		5			

Custody Seal # _____ Appropriate Bottle / Free Y/N _____ Headspace Y/N _____ On Ice Y/N _____ Cooler Temp. _____
 Labels match Coc (Y) N Separate Receipt Log (Y) N 2 coolers oc

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Accutest Laboratories Northern California
STANDARD OPERATING PROCEDURE

Sample Receiving Checklist

Job # C4944
Sample Control Initial EK

Review Chain of Custody The Chain of Custody is to be completely and legibly filled out by Client.

- Are these regulatory (NPDES) samples? Yes / No circle one
- Is pH requested? Yes / No circle one Was Client informed that hold time is 15 min? Yes / No circle one
If yes, did Client consent to continue? _____
- Are sample within hold time? Yes / No circle one Are sample in danger of exceeding its hold-time within 6-48 hours?
- Report to info is complete and legible, including;
- Type of deliverable needed Name Address phone e-mail
- Bill to info is complete and legible, including; PO# Credit card Contact address phone e-mail
- Contact and/or Project Manager identified, including; phone e-mail
- Project name / number Special requirements? Yes / No circle one
- Sample IDs / date & time of collection provided? Yes / No circle one
- Is Matrix listed and correct? Yes / No circle one
- Analyses listed are those we do or client has authorized a subcontract? Yes / No circle one
- Chain is signed and dated by both client and sample custodian? Yes / No circle one
- TAT requested available? Approved by EK

Review Coolers: Cooler #1: 2.1°C ; Cooler #2: 3.6°C

- Were Coolers temperatures measured at $\leq 6^{\circ}\text{C}$? Cooler # 1-2 Temp _____ °C
- If cooler is outside the $\leq 6^{\circ}\text{C}$; note down below the affected bottles in that cooler
 - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

Shipment Method AC

- Custody Seals: Present : Yes / No circle one Unbroken: Yes / No circle one

Review of Sample Bottles: If you answer no, explain below

- Sample ID / bottle number / Date / Time of bottle labels match the COC? Yes / No circle one
- Sample bottle intact? Yes / No circle one
- Is there enough samples for requested analyses? If so, were samples placed in proper containers? Yes / No circle one
- Proper Preservatives? Check pH on preserved samples except 1664, 625, 8270 and VOAs and list below
- Are VOAs received without headspace? Size of bubble (not greater than 6mm in diameter) Yes / No circle one
List sample ID and affected container

Lab #	Client Sample ID	pH Check	Other Comments/Issues
-2	mw-10	<u>PHK2</u>	<u>250ml poly (HNO₃)</u>
-3	mw-2		
-4	mw-9		
-5	mw-1		
-6	mw-11		
-7	mw-3		

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Anc-srv-file1\Entech-Data\Laboratory\Sample_Control\Form_Sample Receipt Checklist_Rev0.doc



GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW176-MB	W5169.D	1	03/31/09	BD	n/a	n/a	VW176

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-1, C4944-2, C4944-6, C4944-7

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 60-130%
2037-26-5	Toluene-D8	96% 60-130%
460-00-4	4-Bromofluorobenzene	100% 60-130%

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW177-MB	W5201.D	1	04/01/09	BD	n/a	n/a	VW177

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-7

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	100%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	101%	60-130%

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW177-MB	W5211.D	1	04/01/09	BD	n/a	n/a	VW177

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-7

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	101%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	101%	60-130%

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW178-MB	W5237.D	1	04/02/09	BD	n/a	n/a	VW178

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-3, C4944-4, C4944-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 60-130%
2037-26-5	Toluene-D8	96% 60-130%
460-00-4	4-Bromofluorobenzene	99% 60-130%

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW178-MB	W5249.D	1	04/02/09	BD	n/a	n/a	VW178

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-3, C4944-4, C4944-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	60-130%
2037-26-5	Toluene-D8	102%	60-130%
460-00-4	4-Bromofluorobenzene	94%	60-130%

Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW176-BS	W5166.D	1	03/31/09	BD	n/a	n/a	VW176

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-1, C4944-2, C4944-6, C4944-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.3	92	60-130
100-41-4	Ethylbenzene	20	15.9	80	60-130
1634-04-4	Methyl Tert Butyl Ether	20	20.9	105	60-130
108-88-3	Toluene	20	16.2	81	60-130
1330-20-7	Xylene (total)	60	48.8	81	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	60-130%
2037-26-5	Toluene-D8	95%	60-130%
460-00-4	4-Bromofluorobenzene	101%	60-130%

Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW176-BS	W5168.D	1	03/31/09	BD	n/a	n/a	VW176

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-1, C4944-2, C4944-6, C4944-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	139	111	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	99%	60-130%

Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW177-BS	W5197.D	1	04/01/09	BD	n/a	n/a	VW177

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
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CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	100%	60-130%

5.2
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Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW177-BS	W5200.D	1	04/01/09	BD	n/a	n/a	VW177

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	139	111	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	101%	60-130%

5.2
5

Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW178-BS	W5234.D	1	04/02/09	BD	n/a	n/a	VW178

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-3, C4944-4, C4944-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	22.1	111	60-130
100-41-4	Ethylbenzene	20	19.1	96	60-130
1634-04-4	Methyl Tert Butyl Ether	20	22.6	113	60-130
108-88-3	Toluene	20	20.2	101	60-130
1330-20-7	Xylene (total)	60	58.9	98	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	60-130%
2037-26-5	Toluene-D8	95%	60-130%
460-00-4	4-Bromofluorobenzene	99%	60-130%

5.2
5

Blank Spike Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW178-BS	W5236.D	1	04/02/09	BD	n/a	n/a	VW178

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-3, C4944-4, C4944-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	135	108	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	97%	60-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C4950-1MS	W5198.D	1	04/01/09	BD	n/a	n/a	VW176
C4950-1MSD	W5187.D	1	03/31/09	BD	n/a	n/a	VW176
C4950-1	W5175.D	1	03/31/09	BD	n/a	n/a	VW176

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-1, C4944-2, C4944-6, C4944-7

CAS No.	Compound	C4950-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	19.2	96	22.4	112	15	60-130/25
100-41-4	Ethylbenzene	ND	20	17.1	86	19.9	100	15	60-130/25
1634-04-4	Methyl Tert Butyl Ether	1.0	20	20.6	98	24.2	116	16	60-130/25
108-88-3	Toluene	ND	20	17.4	87	20.4	102	16	60-130/25
1330-20-7	Xylene (total)	ND	60	51.5	86	60.2	100	16	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C4950-1	Limits
1868-53-7	Dibromofluoromethane	106%	104%	99%	60-130%
2037-26-5	Toluene-D8	96%	97%	96%	60-130%
460-00-4	4-Bromofluorobenzene	101%	102%	98%	60-130%

5.3
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D1928-4MS	W5238.D	1	04/02/09	BD	n/a	n/a	VW177
D1928-4MSD	W5241.D	1	04/02/09	BD	n/a	n/a	VW177
D1928-4	W5203.D	1	04/01/09	BD	n/a	n/a	VW177

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-7

CAS No.	Compound	D1928-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
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CAS No.	Surrogate Recoveries	MS	MSD	D1928-4	Limits
1868-53-7	Dibromofluoromethane	102%	103%	100%	60-130%
2037-26-5	Toluene-D8	94%	95%	97%	60-130%
460-00-4	4-Bromofluorobenzene	99%	99%	98%	60-130%

5.3
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C4945-7MS	W5267.D	1	04/03/09	BD	n/a	n/a	VW178
C4945-7MSD	W5268.D	1	04/03/09	BD	n/a	n/a	VW178
C4945-7	W5261.D	1	04/02/09	BD	n/a	n/a	VW178

The QC reported here applies to the following samples:

Method: SW846 8260B

C4944-3, C4944-4, C4944-5

CAS No.	Compound	C4945-7 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	21.9	110	22.7	114	4	60-130/25
100-41-4	Ethylbenzene	ND	20	20.1	101	20.9	105	4	60-130/25
1634-04-4	Methyl Tert Butyl Ether	1.1	20	22.9	109	23.1	110	1	60-130/25
108-88-3	Toluene	ND	20	21.7	109	22.5	113	4	60-130/25
1330-20-7	Xylene (total)	ND	60	61.4	102	63.4	106	3	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C4945-7	Limits
1868-53-7	Dibromofluoromethane	100%	100%	95%	60-130%
2037-26-5	Toluene-D8	102%	102%	104%	60-130%
460-00-4	4-Bromofluorobenzene	94%	93%	93%	60-130%

5.3
5



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP829-MB	GG4648.D	1	03/30/09	JH	03/30/09	OP829	GGG179

The QC reported here applies to the following samples:

Method: SW846 8015B M

C4944-2

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
	TPH (> C28-C40)	ND	0.20	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	81% 45-140%

6.1
6

Method Blank Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP832-MB	GG4702.D	1	03/31/09	JH	03/31/09	OP832	GGG180

The QC reported here applies to the following samples:

Method: SW846 8015B M

C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	0.10	mg/l	
	TPH (> C28-C40)	ND	0.20	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	77% 45-140%

6.1
6

Blank Spike/Blank Spike Duplicate Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP829-BS	GG4649.D	1	03/30/09	JH	03/30/09	OP829	GGG179
OP829-BSD	GG4650.D	1	03/30/09	JH	03/30/09	OP829	GGG179

The QC reported here applies to the following samples:

Method: SW846 8015B M

C4944-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.648	65	0.631	63	3	45-140/30
	TPH (> C28-C40)	1	0.698	70	0.670	67	4	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	74%	69%	45-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C4944
Account: CCCAA Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP832-BS	GG4703.D	1	03/31/09	JH	03/31/09	OP832	GGG180
OP832-BSD	GG4704.D	1	03/31/09	JH	03/31/09	OP832	GGG180

The QC reported here applies to the following samples:

Method: SW846 8015B M

C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.705	71	0.710	71	1	45-140/30
	TPH (> C28-C40)	1	0.800	80	0.864	86	8	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	82%	85%	45-140%

6.2
6



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C4944
Account: CCCAA - Cameron-Cole
Project: T0600102158-AC Transit Seminary, Oakland, CA

QC Batch ID: MP1030
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 03/30/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	13	10		
Antimony	10	6.7	5		
Arsenic	10	9.6	4.4		
Barium	5.0	.2	.24		
Beryllium	5.0	.4	.1		
Boron	10	7	2		
Cadmium	2.0	.3	.4		
Calcium	50	5.2	20		
Chromium	5.0	.5	.4		
Cobalt	5.0	.4	.4		
Copper	5.0	.7	1.7		
Iron	50	3.3	22	-13	<50
Lead	5.0	2.4	2		
Lithium	10	1.9	1		
Magnesium	50	13	8		
Manganese	5.0	1.2	.3		
Molybdenum	5.0	1.3	1		
Nickel	5.0	.9	1.2		
Potassium	500	51	50		
Selenium	20	9.8	8.6		
Silicon	50	14	3.5		
Silver	5.0	.8	.4		
Sodium	100	16	12		
Strontium	10	.2			
Thallium	20	4	7.3		
Tin	50	2.6	2		
Titanium	2.0	.2	.4		
Vanadium	5.0	.2	.4		
Zinc	10	3.5	1.9		

Associated samples MP1030: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.1
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C4944
 Account: CCCAA - Cameron-Cole
 Project: T0600102158-AC Transit Seminary, Oakland, CA

QC Batch ID: MP1030
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 03/30/09

Metal	C4944-2 Original MS	Spike/lot MPIR3	% Rec	QC Limits	
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron	292	760	500	93.6	80-120
Lead					
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel					
Potassium	anr				
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP1030: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

7.1.2
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C4944
 Account: CCCAA - Cameron-Cole
 Project: T0600102158-AC Transit Seminary, Oakland, CA

QC Batch ID: MP1030
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 03/30/09

Metal	C4944-2 Original MSD	Spike MPIR3	lot % Rec	MSD RPD	QC Limit
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron	292	791	500	99.8	4.0 20
Lead					
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel					
Potassium	anr				
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP1030: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

7.1.2
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C4944
 Account: CCCAA - Cameron-Cole
 Project: T0600102158-AC Transit Seminary, Oakland, CA

QC Batch ID: MP1030
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 03/30/09 03/30/09

Metal	BSP Result	Spikelot MPIR3	% Rec	QC Limits	BSD Result	Spikelot MPIR3	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	511	500	102.2	80-120	505	500	101.0	1.2	
Lead									
Lithium									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium	anr								
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP1030: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.1.3
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: C4944
 Account: CCCAA - Cameron-Cole
 Project: T0600102158-AC Transit Seminary, Oakland, CA

QC Batch ID: MP1030
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 03/30/09

Metal	C4944-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	292	279	4.5	0-10
Lead				
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium	anr			
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP1030: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.1.4
7



General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C4944

Account: CCCAA - Cameron-Cole

Project: T0600102158-AC Transit Seminary, Oakland, CA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP611/GN1456	0.50	0.052	mg/l	5	5.30	106.0	90-110%
Nitrogen, Nitrate	GP606/GN1445	0.10	0.0	mg/l	5	4.90	98.0	90-110%
Sulfate	GP606/GN1445	0.50	0.0	mg/l	5	5.01	100.2	90-110%
Sulfate	GP611/GN1456	0.50	0.0	mg/l	5	4.92	98.4	90-110%

Associated Samples:

Batch GP606: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Batch GP611: C4944-2, C4944-4, C4944-6

(*) Outside of QC limits

8.1

8

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C4944

Account: CCCAA - Cameron-Cole

Project: T0600102158-AC Transit Seminary, Oakland, CA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Chloride	GP611/GN1456	mg/l	5	5.01	5.6	25%
Nitrogen, Nitrate	GP606/GN1445	mg/l	5	4.90	0.0	25%
Sulfate	GP606/GN1445	mg/l	5	5.00	0.2	25%
Sulfate	GP611/GN1456	mg/l	5	4.92	0.0	25%

Associated Samples:

Batch GP606: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Batch GP611: C4944-2, C4944-4, C4944-6

(*) Outside of QC limits

8.2
8

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C4944

Account: CCCAA - Cameron-Cole

Project: T0600102158-AC Transit Seminary, Oakland, CA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP611/GN1456	C4951-3	mg/l	142	200	331	94.5	80-120%
Nitrogen, Nitrate	GP606/GN1445	C4944-2	mg/l	0.078	4	3.6	88.1	80-120%
Sulfate	GP606/GN1445	C4944-2	mg/l	69.0	4	74.9	147.5(a)	80-120%
Sulfate	GP611/GN1456	C4951-3	mg/l	301	200	481	90.0	80-120%

Associated Samples:

Batch GP606: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Batch GP611: C4944-2, C4944-4, C4944-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.



MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C4944

Account: CCCAA - Cameron-Cole

Project: T0600102158-AC Transit Seminary, Oakland, CA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP611/GN1456	C4951-3	mg/l	142	200	330	0.3	
Nitrogen, Nitrate	GP606/GN1445	C4944-2	mg/l	0.078	4	3.6	0.0	
Sulfate	GP606/GN1445	C4944-2	mg/l	69.0	4	72.5	3.3	
Sulfate	GP611/GN1456	C4951-3	mg/l	301	200	479	0.4	

Associated Samples:

Batch GP606: C4944-2, C4944-3, C4944-4, C4944-5, C4944-6, C4944-7

Batch GP611: C4944-2, C4944-4, C4944-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

CHAIN OF CUSTODY

3334 Victor Court, Santa Clara, CA 95054
 (408) 588-0200 FAX: (408) 588-0201

CCCAA1842

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest NC Job # C4944

Client / Reporting Information		Project Information	
Company Name Cameron - Cole	Project Name: AC Seminary	Address 101 W. Atlantic Ave #91	
Address 101 W. Atlantic Ave #91	Street 100 Seminary	City Alameda CA	City Oakland CA
State CA	State CA	Zip 94501	State CA
Project Contact: Shawn Sarani	Project # 2036-002	Project # 2036-002	
Phone # 510-769-3579	EMAIL: SSarani@Cameron-cola.com	Client Purchase Order #	
Samplers' Name DL, DB			

Requested Analysis	Matrix Codes	LAB USE ONLY																				
		8260 Full List	8260 Petro	8270 PAHs	TPH-Extractable	METALS	Pesticides	BTEX-MBE-TPH	Gas, BTEX, MBE	diesel/motor oil	nitrate/sulfate	Iron	WW- Water	GW- Ground Water	SW- Surface Water	SO- Soil	OI-Oil	WP-Wipe	LIQ - Non-aqueous Liquid	AIR	DW- Drinking Water	
8260 Full List <input type="checkbox"/>	8260 Petro (includes BTEX / MBE / TBA / EIBE / DIPE / TAME / 1,2-DCA / EDB / TPH as Gas) <input type="checkbox"/>	8270 PAHs only <input type="checkbox"/>	TPH-Extractable - Diesel - Motor Oil - Other <input type="checkbox"/>	METALS: CAM-170 LUFT-50 RCRA-90 PPM-13 <input type="checkbox"/>	Pesticides-8081 <input type="checkbox"/>	BTEX-MBE-TPH as Gasoline by GC/ID-FID <input type="checkbox"/>	Gas, BTEX, MBE, 8Z60 <input checked="" type="checkbox"/>	diesel/motor oil 8015MBE <input checked="" type="checkbox"/>	nitrate/sulfate 300.0 <input checked="" type="checkbox"/>	Iron 6010B <input checked="" type="checkbox"/>												

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection			Matrix	# of bottles	Number of preserved Bottles															
		Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE								
-1	TB-01	3-26-09	1030	DL	GW	7	3															
-2	MW-10		1235	DB						1	3											
-3	MW-2		1325	DL																		
-4	MW-9		1400	DB																		
-5	MW-1		1425	DL																		
-6	MW-11		1445	DB																		
-7	MW-3		1510	DL																		

Turnaround Time (Business days)	Approved By/ Date:	Data Deliverable Information	Comments / Remarks
<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> 10 Day (Workload dependent) <input type="checkbox"/> 5 Day (Workload dependent) <input type="checkbox"/> 3 Day (125% markup) <input type="checkbox"/> 2 Day (150% markup) <input type="checkbox"/> 1 Day (200% markup) <input type="checkbox"/> Same Day (300% markup)	<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> EDF for Geotracker Provide EDF Global ID: TC600102158 Provide EDF Logcode:	<input type="checkbox"/> 3 Swials each (with CL) <input type="checkbox"/> 2 Lit Ambers each N/P <input type="checkbox"/> 250ml poly each N/P <input type="checkbox"/> 250ml poly each (HNO3)	Cooler #1: 2.1°C ; Cooler Cooler #2: 3.6°C

Emergency T/A data available VIA Lablink					
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by: 1 <i>[Signature]</i>	Date Time: 3/27/09 0845	Received By: <i>[Signature]</i>	Relinquished By: 2 <i>[Signature]</i>	Date Time: 3/27/09 11:24	Received By: 2 <i>[Signature]</i>
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By:
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Appropriate Bottle / Pres. Y/N	Headspace Y/N
			Labels match Coc Y/N	Separate Receipt Log Y/N	On Ice Y/N
			Cooler Temp. 2 Coolers oc		

**Accutest Laboratories Northern California
STANDARD OPERATING PROCEDURE**

Sample Receiving Checklist

Job # C4944
Sample Control Initial EK

Review Chain of Custody The Chain of Custody is to be completely and legibly filled out by Client.

- Are these regulatory (NPDES) samples? Yes / No circle one
- Is pH requested? Yes / No circle one Was Client informed that hold time is 15 min? Yes / No circle one
If yes, did Client consent to continue? _____
- Are sample within hold time? Yes / No circle one Are sample in danger of exceeding its hold-time within 6-48 hours?
- Report to info is complete and legible, including;
 - Type of deliverable needed Name Address phone e-mail
 - Bill to info is complete and legible, including; PO# Credit card Contact address phone e-mail
 - Contact and/or Project Manager identified, including; phone e-mail
 - Project name / number Special requirements? Yes / No circle one
 - Sample IDs / date & time of collection provided? Yes / No circle one
 - Is Matrix listed and correct? Yes / No circle one
 - Analyses listed are those we do or client has authorized a subcontract? Yes / No circle one
 - Chain is signed and dated by both client and sample custodian? Yes / No circle one
 - TAT requested available? Approved by EK

Review Coolers: cooler #1: 2.1°C ; cooler #2: 3.6°C

- Were Coolers temperatures measured at $\leq 6^{\circ}\text{C}$? Cooler # 1-2 Temp _____ °C
 - If cooler is outside the $\leq 6^{\circ}\text{C}$; note down below the affected bottles in that cooler
 - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

Shipment Method AC

- Custody Seals: Present : Yes / No circle one Unbroken: Yes / No circle one

Review of Sample Bottles: If you answer no, explain below

- Sample ID / bottle number / Date / Time of bottle labels match the COC? Yes / No circle one
- Sample bottle intact? Yes / No circle one
- Is there enough samples for requested analyses? If so, were samples placed in proper containers? Yes / No circle one
- Proper Preservatives? Check pH on preserved samples except 1664, 625, 8270 and VOAs and list below
- Are VOAs received without headspace? Size of bubble (not greater than 6mm in diameter) Yes / No circle one
List sample ID and affected container

Lab #	Client Sample ID	pH Check	Other Comments/Issues
-2	mw-10	PH 2	250ml PDI (HNO ₃)
-3	mw-2		
-4	mw-9		
-5	mw-1		
-6	mw-11		
-7	mw-3		

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

APPENDIX B

SAMPLING EVENT DATA

HYDRODATA

PROJECT: *AC Seminary* EVENT: *1Q2009* TECHNICIAN: *DE/DP*

WELL OR LOCATION	DATE	TIME	MEASUREMENT	CODE	COMMENTS
<i>mw-3</i>	<i>3/26/09</i>	<i>09:47</i>	<i>2.18</i>		
<i>mw-1</i>	<i>3/26/09</i>	<i>09:53</i>	<i>3.08</i>		
<i>MW-11</i>	<i>3-26-09</i>	<i>0953</i>	<i>2.01</i>		
<i>MW-9</i>	<i>3-26-09</i>	<i>0958</i>	<i>3.31</i>		
<i>MW-10</i>	<i>3-26-09</i>	<i>1002</i>	<i>2.51</i>		
<i>MW-2</i>	<i>3-26-09</i>	<i>1018</i>	<i>3.82</i>		<i>-No product detected w/ OWI</i>

CODES:
 SWL - Static Water Level
 OIL - Oil Level
 OWI - Oil/Water Interface
 MTD - Measured Total Depth

CAMERON-COLE
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-1

PROJECT AC Transit Seminary EVENT 1Q2009 SAMPLER DL DATE 3-26-09

Well type (MW, EW, PZ, etc.)	ACTION	TIME	PUMP RATE	DTW
			(gpm)	
Well type <u>MW</u> Diameter <u>2"</u> <u>0.165</u> gal/ft. casing Intake depth <u>3.06</u> SWL (if above screen) SWL (if in screen) Measured TD <u>15.30</u>	Start Pump / Begin	1358	0.13	
		1403		4.07
		1410		5.15
		1413		5.82
		1417		6.17
	Stop	1417		
	Sampled	1425		
Final IWL				6.29

PURGE CALCULATION

0.165 gal/ft. * 12.24 ft. = 2.02 gals. X 3 = 6.06 gals.

SWL to TD one volume purge volume - 3 casings

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

Equipment Used / Sampling Method / Description of Event:
Cent pump to purge
Disp bailer to sample

Actual gallons purged	<u>6.25</u>
Actual volumes purged	<u>3.09</u>
Well Yield ⊕	<u>HY</u>
COC #	

Additional Comments:

Sample I.D.	Analysis	Lab
<u>MW-1</u>	<u>4260</u>	<u>Accutest</u>
<u>↓</u>	<u>4015m</u>	<u>↓</u>
	<u>300.0</u>	
	<u>6010</u>	

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
<u>1.5</u>	<u>22.5</u>	<u>1564</u>	<u>6.89</u>	<u>12.11</u>	<u>DO - 0.09 mg/L</u>
<u>3.0</u>	<u>21.9</u>	<u>1581</u>	<u>6.88</u>	<u>6.31</u>	<u>ORP - -77mV</u>
<u>5.0</u>	<u>21.5</u>	<u>1585</u>	<u>6.89</u>	<u>4.78</u>	<u>Fe - 3.09 mg/L</u>

*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 returning 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 Transit Seminary EVENT 1Q2009 SAMPLER RL DATE 3-26-09

Well type (MW, EW, PZ, etc.)	ACTION	TIME	PUMP RATE	DTW	
			(gpm)		
MW Diameter <u>2"</u> <u>0.165</u> gal/ft. casing	Start Pump / Begin	1047	0.42		
		1050		9.30	
		1215 13.31	1100		15.21
		1230 13.48	1110		16.47
		1245 14.02	1120		18.22
		1300 16.71	1130		15.07
		1302 16.24	1140		12.15
		1309 16.31	1150		12.20
	Stop	1314			16.45
	Sampled	1325			
Final IWL					

PURGE CALCULATION			
<u>0.165</u> gal/ft. *	<u>19.48</u> ft. =	<u>3.21</u> gals. X <u>3</u>	<u>9.64</u> gals.
	SWL to TD	one volume	purge volume - 3 casings
2" = 0.165 gal/ft.	4" = 0.65 gal/ft.	6" = 1.47 gal/ft.	

Equipment Used / Sampling Method / Description of Event:
Cent pump to purge
disp bailer to sample
purge 20 volumes (64.2) + sample

Actual gallons purged 65
 Actual volumes purged 20.25
 Well Yield \oplus HT MT

Additional Comments:
- No product detected w/ OWI probe
- out of gas @ 1215 restart 1217
TB-01 collected, 3-4-09 @ 1445
~~3-26-09~~ @ 1030

Sample I.D.	Analysis	Lab
MW-2	8260	Accutest
↓	8015M	↓
↓	300.0	↓
↓	6010B	↓
TB-01	8260	↓

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
55	24.5	2680	6.88	7.45	DO - 3.05 mg/L
58	24.4	2670	6.87	7.23	ORP - -16mV
61	24.5	2690	6.87	6.19	Fe - 2.44 mg/L
4.					
5.					

*Take measurement at approximately each casing volume purged. \oplus 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 returning later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-3

PROJECT AC Transit Seminary EVENT 1Q2009 SAMPLER PC DATE 3-26-09

	Well type <u>MW</u>	ACTION	TIME	PUMP RATE (gpm)	DTW
	(MW, EW, PZ, etc.)	Start Pump / Begin	1450	0.47	
	Diameter <u>2"</u>		1455	↓	3.52
	<u>0.165</u> gal/ft. casing		1500		5.24
			1502		5.45
			1505		6.19
		Stop	1506		6.22
	Sampled	1510			
	Final IWL				

PURGE CALCULATION

0.165 gal/ft. * 14.83 ft. = 2.45 gals. X 3 = 7.34 gals.

SWL to TD one volume purge volume - 3 casings

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

Equipment Used / Sampling Method / Description of Event:
Cent pump to purge
Disp bailer to sample

Actual gallons purged	<u>7.5</u>
Actual volumes purged	<u>3.06</u>
Well Yield ⊕	<u>HY</u>
COC #	

Additional Comments:

Sample I.D.	Analysis	Lab
<u>MW-3</u>	<u>8260</u>	<u>Accutest</u>
↓	<u>8015M</u>	↓
	<u>300.0</u>	
	<u>6010B</u>	

Gallons Purged *	Temp °C	EC (us / cm)	pH	Turbidity (NTU)	Other
<u>2.0</u>	<u>22.5</u>	<u>245</u>	<u>7.31</u>	<u>73.15</u>	<u>DO - 2.09 mg/L</u>
<u>4.0</u>	<u>22.1</u>	<u>276</u>	<u>7.28</u>	<u>9.05</u>	<u>ORP - -56mV</u>
<u>6.0</u>	<u>21.8</u>	<u>284</u>	<u>7.26</u>	<u>5.52</u>	<u>Fe - 1.41 mg/L</u>

*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 returning later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-9

PROJECT <u>ACTSeminary</u>		EVENT <u>1Q2009</u>		SAMPLER <u>DB</u>		DATE <u>3/26/09</u>	
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<p>Intake depth</p> <p>SWL <u>3.24</u> (if above screen)</p> <p>SWL _____ (if in screen)</p> <p>Measured TD <u>19.70</u></p> <p>Diameter <u>2"</u></p> <p><u>0.165</u> gal/ft. casing</p> <p>=TOP</p> <p>=BOP</p> <p>=TD (as built)</p>	Well type <u>MW</u> (MW, EW, PZ, etc.)	ACTION	TIME	PUMP RATE (gpm)	DTW
	Start Pump / Begin	<u>13:33</u>	<u>0.45</u>		
	Stop	<u>13:53</u>			
	Sampled	<u>14:00</u>			
	Final IWL				
	PURGE CALCULATION				
$\frac{0.165 \text{ gal/ft.}}{\text{SWL to TD}} \times \frac{16.46 \text{ ft.}}{\text{SWL to TD}} = \frac{2.72 \text{ gals.}}{\text{one volume}} \times 3 = \frac{8.15 \text{ gals.}}{\text{purge volume - 3 casings}}$					
<p>2" = 0.165 gal/ft. 4" = 0.65 gal/ft. 6" = 1.47 gal/ft.</p>					

Equipment Used / Sampling Method / Description of Event: <p><i>Cent. pump to purge; disp bailer used to sample.</i></p>	Actual gallons purged <u>9</u> Actual volumes purged <u>3.3</u> Well Yield ⊕ <u>HY</u>
COC # _____	

Additional Comments:	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;">Sample I.D.</th> <th style="width:30%;">Analysis</th> <th style="width:40%;">Lab</th> </tr> <tr> <td><u>MW-9</u></td> <td><u>8260</u></td> <td><u>Accutest</u></td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>8015M</u></td> <td style="text-align: center;">↓</td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>300.0</u></td> <td></td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>6010B</u></td> <td style="text-align: center;">↓</td> </tr> </table>	Sample I.D.	Analysis	Lab	<u>MW-9</u>	<u>8260</u>	<u>Accutest</u>	↓	<u>8015M</u>	↓	↓	<u>300.0</u>		↓	<u>6010B</u>	↓
Sample I.D.	Analysis	Lab														
<u>MW-9</u>	<u>8260</u>	<u>Accutest</u>														
↓	<u>8015M</u>	↓														
↓	<u>300.0</u>															
↓	<u>6010B</u>	↓														

Gallons Purged *	Temp °C	EC (us/cm)	pH	Turbidity (NTU)	Other
<u>2</u>	<u>19.3</u>	<u>1353</u>	<u>8.50</u>	<u>12.28</u>	<u>DO: 2.84 g/L</u>
<u>4.5</u>	<u>19.6</u>	<u>1435</u>	<u>7.84</u>	<u>8.64</u>	<u>ORP: -73 mV</u>
<u>7</u>	<u>20.5</u>	<u>1495</u>	<u>7.84</u>	<u>4.95</u>	<u>FE: 0.38 mg/L</u>
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 returning later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-10

PROJECT <u>ACSeminary</u>		EVENT <u>1Q2009</u>		SAMPLER <u>DB</u>		DATE <u>3/26/09</u>	
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	Well type <u>MW</u> (MW, EW, PZ, etc.)	ACTION	TIME	PUMP RATE (gpm)	DTW
	Diameter <u>2"</u>	Start Pump / Begin	12:13	0.3	2.43
	<u>0.165</u> gal/ft. casing				
		Stop	12:28		
		Sampled	12:35		
		Final IWL			2.95

PURGE CALCULATION			
<u>0.165</u> gal/ft. *	<u>8.97</u> ft. = SWL to TD	<u>1.48</u> gals. X 3 one volume	<u>4.44</u> gals. purge volume - 3 casings
2" = 0.165 gal/ft.	4" = 0.65 gal/ft.	6" = 1.47 gal/ft.	

Equipment Used / Sampling Method / Description of Event: <i>Cent. pump used to purge; disp. bailer used to sample.</i>	Actual gallons purged <u>4.5</u> Actual volumes purged <u>3.04</u> Well Yield ⊕ <u>HY</u>
COC # _____	

Additional Comments:	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:33%;">Sample I.D.</th> <th style="width:33%;">Analysis</th> <th style="width:33%;">Lab</th> </tr> <tr> <td><u>MW-10</u></td> <td><u>8260</u></td> <td><u>Accutest</u></td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>8015M</u></td> <td style="text-align: center;">↓</td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>300.0</u></td> <td style="text-align: center;">↓</td> </tr> <tr> <td style="text-align: center;">↓</td> <td><u>6010B</u></td> <td style="text-align: center;">↓</td> </tr> </table>	Sample I.D.	Analysis	Lab	<u>MW-10</u>	<u>8260</u>	<u>Accutest</u>	↓	<u>8015M</u>	↓	↓	<u>300.0</u>	↓	↓	<u>6010B</u>	↓
Sample I.D.	Analysis	Lab														
<u>MW-10</u>	<u>8260</u>	<u>Accutest</u>														
↓	<u>8015M</u>	↓														
↓	<u>300.0</u>	↓														
↓	<u>6010B</u>	↓														

Gallons Purged *	Temp °C	EC $\mu S/cm$	pH	Turbidity (NTU)	Other
1. <u>1</u>	<u>20.5</u>	<u>3.82</u>	<u>7.10</u>	<u>1100+</u>	<u>DO: 0.004 g/L</u>
2. <u>2.5</u>	<u>20.3</u>	<u>4.11</u>	<u>7.10</u>	<u>2.66</u>	<u>ORP: 121 mV</u>
3. <u>4</u>	<u>20.1</u>	<u>4.19</u>	<u>7.11</u>	<u>1.96</u>	<u>FE: 0.04 mg/L</u>
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 returning later or next day. VLY - Minimal recharge - unable to purge 3 volumes.

CAMERON-COLE
SAMPLING EVENT DATA SHEET

WELL OR LOCATION MW-11

PROJECT ACT Seminary EVENT 1Q2009 SAMPLER DB DATE 3/26/09

<p>Well type <u>MW</u> (MW, EW, PZ, etc.)</p> <p>Diameter <u>2"</u></p> <p><u>0.165</u> gal/ft. casing</p>	ACTION	TIME	PUMP RATE (gpm)	DTW
	Start Pump / Begin	10:43	0.15	1.95
	Stop	11:20		
	Sampled	14:45		
	Final IWL			

PURGE CALCULATION

$$0.165 \text{ gal/ft.} \times \frac{11.49 \text{ ft.}}{\text{SWL to TD}} = \frac{1.90 \text{ gals.}}{\text{one volume}} \times 3 = \frac{5.69 \text{ gals.}}{\text{purge volume - 3 casings}}$$

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

Equipment Used / Sampling Method / Description of Event:

*Cent. pump used to purge;
disp. bailer used to sample.*

Actual gallons purged	<u>5.75</u>
Actual volumes purged	<u>3.02</u>
Well Yield \oplus	<u>MY</u>
COC #	

Additional Comments:

*Pumped dry @ very low flow rate;
let well recharge to sample.*

Sample I.D.	Analysis	Lab
<u>MW-11</u>	<u>8260</u>	<u>Accutest</u>
↓	<u>8015m</u>	↓
↓	<u>300.0</u>	↓
↓	<u>6010B</u>	↓

Gallons Purged *	Temp °C	EC (us/cm)	pH	Turbidity (NTU)	Other
<u>1.5</u>	<u>19.5</u>	<u>1197</u>	<u>7.22</u>	<u>72.31</u>	<u>DO: 9.45 g/L</u>
<u>3.0</u>	<u>19.6</u>	<u>1247</u>	<u>7.35</u>	<u>48.14</u>	<u>ORP: 90 mV</u>
<u>5.0</u>	<u>20.6</u>	<u>1262</u>	<u>7.64</u>	<u>33.92</u>	<u>FE: 0.21 mg/L</u>
4.					
5.					

*Take measurement at approximately each casing volume purged. \oplus 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 returning later or next day. VLY - Minimal recharge - unable to purge 3 volumes.