- Need doc rpt for Tank farm 2
- Need SS + GW samples from Tank farm 2 if not done during removal
- MW-10 w/ 1,300 ppb TPH diesel - Need to delineate extent + if contam going to storm drain along Doyle St.

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

May 1, 2000

Prepared For:

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

Prepared By:

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

Project No: 792551

Reviewed By
Brad Wright, RG, CHG

STATE OF CALIFORNIA REGISTERED GEOLOGIST 5576 Exp. 1-00 BRADLEY D. WRIGHT REGISTERED GEOLOGIST

Written By
Nathan King
510/337-8661

AC Transit
Alameda-Contra Costa Transit District

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

May 22, 2000

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

Dear Ms. chu:

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

AC Transit hereby submits the enclosed third quarterly groundwater monitoring report for the AC Transit facility located at 1177 47th Street in Emeryville. The report was prepared by our consultant, Safety-Kleen Consulting (formerly Environmental Decision Group). In response to your February 2, 2000, letter, this quarterly monitoring report also includes the results of a site reconnaissance to locate wells W-1 through W-4 and analysis of all samples for methyl tertiary-butyl ether (MTBE) and gasoline.

Ground water samples from twelve on-site monitoring wells (MW-1 through MW-10, W-1 and W-4) were collected and analyzed for total extractable petroleum hydrocarbons (TEPH), benzene, toluene, ethylbenzene, and xylenes (BTEX), MTBE, and gasoline. Safety-Kleen Consulting could not find wells W-2 and W-3 at the time of their sampling activities. Depth to ground water was measured in each well and ground water contour maps were developed for the report.

Sample results indicate that the concentrations of petroleum hydrocarbons increased in each well since the previous quarter, except in wells MW-3, MW-4, and MW-9. TPH was detected in all monitoring wells except MW-4. Concentrations of TPH ranged from 50 to 22,000 ppb. In addition, benzene was present in wells W-1, W-4, and MW-6 at concentrations of 20 ppb, 1.1 ppb, and 6.8 ppb, respectively. MTBE was detected in four wells at concentrations ranging from 12 ppb to 100 ppb. The free phase hydrocarbon layer detected in well MW-6 was limited to a sheen for this sampling event.

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

Sincerely,

Suzanne Patton
Suzanne Patton, P.E.
Environmental Manager

SP/sp

enclosure

00 MAY 23 PM 3:38
ENVIRONMENTAL PROTECTION

Evachu4.doc

bcc: C. Babington
P. Cannon
J. DeProspero
B. Livingston
R. Medeiros
S. Tracey
File

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INTRODUCTION

This report presents the results from the March 2000 sampling event for the AC Transit Facility located at 1177 47th Street, Emeryville, California (Site). Groundwater sampling of monitor wells MW-1 through MW-10 was reinstated in August 1999, in accordance with directives from Alameda County Health Care Services (ACHCS). In a letter dated February 2, 2000, ACHCS requested that the status of monitor wells W-1 through W-4 be determined, and if found be included in the quarterly sampling events. In addition, the February 2, 2000, letter requests that analysis for MTBE and gasoline be performed on all Site monitor wells. AC Transit retained Safety-Kleen Consulting to perform this work.

OBJECTIVES AND SCOPE OF WORK

Work performed during this sampling event included measuring depth to water in the monitor wells and sample collection. As requested by the ACHCS, a Site reconnaissance was performed to determine if monitor wells W-1 through W-4 could be located. During the reconnaissance, monitor wells W-1 and W-4 were located and sampled. There was no evidence of monitor wells W-2 and W-3 at the location shown on the Site map. Groundwater samples were analyzed for total extractable petroleum hydrocarbons (TEPH) using Environmental Protection Agency (EPA) Method 8015 Modified and benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and gasoline by EPA Method 8021B.

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

Groundwater Elevations and Flow Direction

On March 1st and 2nd, 2000, all Site monitor wells with the exception of W-2 and W-3, were inspected and measured for the presence of free phase hydrocarbons and depth to groundwater. Measurements of depths to groundwater are presented on Table 1 and were used to construct the

groundwater elevation contours shown in Figure 1. A 0.24 inch free phase hydrocarbon sheen was detected in MW-6 during this sampling event. As shown on Figure 1, groundwater flow is to the west at a gradient of 0.019 feet/foot.

Groundwater Sampling Activities

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

Groundwater samples were transferred to 40-milliliter glass vials preserved with hydrochloric acid and one-liter non-preserved amber glass containers and placed in an ice-filled cooler for shipment under chain-of-custody to a State of California certified laboratory. A trip blank was submitted for analysis by EPA Method 8021B.

Groundwater Analytical Results

Table 2 presents groundwater analytical results for the March 2000 sampling event. TPH was detected in all Site monitor wells except for MW-3 and MW-4. Certified analytical reports and chain-of-custody documents are included in Appendix A. Concentrations of TPH above laboratory reporting limits ranged from 50 to 22,000 parts per billion (ppb). Concentrations of TPH increased in all monitor wells except MW-3, MW-4, and MW-9. Benzene was detected in wells W-1, W-4, and MW-6, at concentrations of 20 ppb, 1.1 ppb, and 6.8 ppb, respectively. These concentrations are above the maximum contaminant level (MCL) for benzene of 1.0 ppb. Toluene and ethylbenzene were detected in monitor well W-1 at concentrations below the MCL. MTBE was detected in MW-1, MW-2, MW-5 and MW-10 at 68 ppb, 81 ppb, 100 ppb, and 12 ppb, respectively.

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

SUMMARY OF RESULTS

- ACHCS requested that monitor wells W-1 through W-4 be included in the quarterly monitoring program.

- Monitor wells W-2 and W-3 were not located. Alameda County Flood Control Zone 7 and Alameda County Public Works Agency were contacted to determine if records documenting the abandonment of these wells were on file. No records were on file. These wells may be buried or covered. An underground metallic survey will be performed before the next sampling event in attempt to locate the metal vault box lids of these wells. If located, the wells will be added to the next sampling event.

- MTBE was detected in monitor wells MW-1, MW-2, MW-5, and MW-10.

- Benzene was detected in W-1, W-4, and MW-6 above the MCL of 1 ppb.

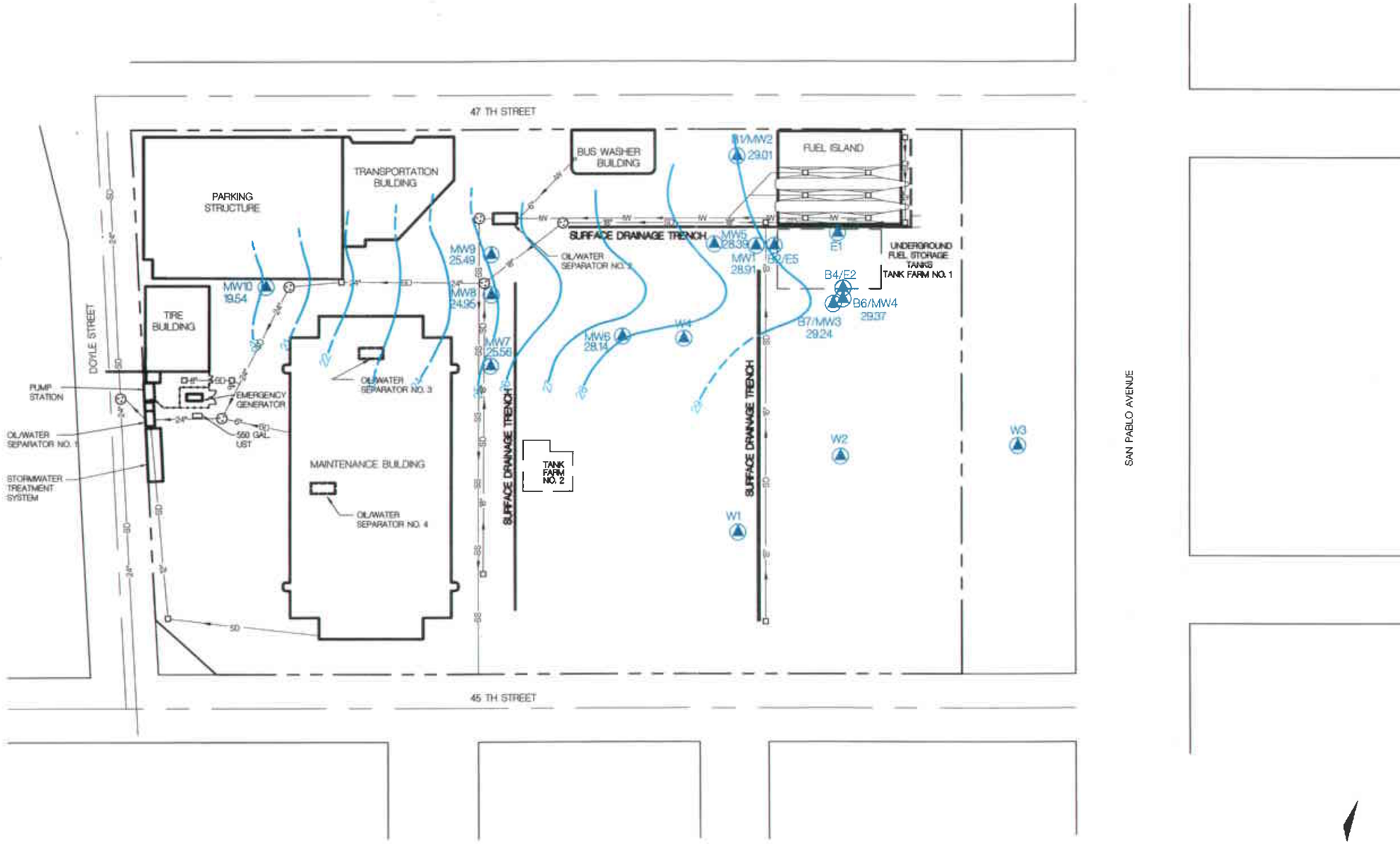
- A 0.002 foot free phase hydrocarbon sheen was present in MW-6.

- TPH was detected in all Site monitor wells except MW-3 and MW-4.

- Groundwater flow is to the west at a gradient of 0.019 feet/foot.

PROJECTED WORK AND RECOMMENDATIONS

- Quarterly groundwater monitoring is scheduled for May 2000.
- Locate monitor wells W-2 and W-3.
- Survey elevations of monitor wells W-1, W-4 and W-2, W-3 if located.



LEGEND

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

North

0 100

FEET

	BY	DATE
DRAWN	CJJ	3/23/00
CHECKED		
APPROVED		
APPROVED		
APPROVED		

safety-kleen consulting

EMERYVILLE FACILITY - OAKLAND CALIFORNIA

FIGURE 1

AC TRANSIT - POTENTIOMETRIC SURFACE MAP

SCALE: 1" = 100'

DWG. NO: 792551-005

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

Well	Date	Top of Casing Elevation (ft-msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-1	8/31/99	32.56	None	3.24	29.32	NA
	11/23/99		None	4.55	28.01	NA
	3/1/00		**None**	**3.65**	**28.91**	**NA**
MW-2	8/31/99	32.12	None	5.24	26.88	NA
	11/23/99		None	4.03	28.09	NA
	3/2/00		**None**	**3.11**	**29.01**	**NA**
MW-3	8/31/99	34.06	None	6.15	27.91	NA
	11/23/99		None	5.78	28.28	NA
	3/1/00		**None**	**4.82**	**29.24**	**NA**
MW-4	8/31/99	34.11	None	6.22	27.89	NA
	11/23/99		None	6.01	28.10	NA
	3/1/00		**None**	**4.74**	**29.37**	**NA**
MW-5	8/31/99	31.70	None	4.51	27.19	NA
	11/23/99		None	4.00	27.70	NA
	3/1/00		**None**	**3.31**	**28.39**	**NA**
MW-6	8/31/99	31.02	0.40	4.40	26.62	26.94
	11/23/99		Sheen	3.81	27.21	NA
	3/2/00		**0.02**	**2.88**	**28.14**	**28.16**
MW-7	8/31/99	29.62	None	5.47	24.15	NA
	11/23/99		None	4.93	24.69	NA
	3/2/00		**None**	**4.06**	**25.56**	**NA**
MW-8	8/31/99	29.43	None	5.35	24.08	NA
	11/23/99		None	4.75	24.68	NA
	3/2/00		**None**	**4.48**	**24.95**	**NA**
MW-9	8/31/99	29.18	None	4.15	25.03	NA
	11/23/99		None	3.93	25.25	NA
	3/2/00		**None**	**3.69**	**25.49**	**NA**
MW-10	8/31/99	29.13	None	9.59	19.54	NA
	11/23/99		None	9.44	19.69	NA
	3/2/00		**None**	**9.06**	**20.07**	**NA**
W-1	**3/2/00**	**NA**	**None**	**4.08**	**NA**	**NA**
W-4	**3/2/00**	**NA**	**None**	**3.34**	**NA**	**NA**

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

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

Well	Date	TPH-8015 (Diesel)	TPH-8021 (Gas.)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	700	1,750	None
MW-1	8/31/99	310	NA	<1.0	2.4	1	1.6	NA
	11/23/99	250	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	310	62	<1.0	<1.0	<1.0	<2.0	68
MW-2	8/31/99	180	NA	<1.0	<1.0	<1.0	1.2	NA
	11/23/99	120	NA	<5.0	<5.0	<5.0	<5.0	NA
	3/1/00	510	<50	<1.0	<1.0	<1.0	<2.0	81
MW-3	8/31/99	2,700	NA	<1.0	<1.0	<1.0	<1.0	NA
	11/23/99	640	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
MW-4	8/31/99	<50	NA	<1.0	<1.0	<1.0	1.6	NA
	11/23/99	<50	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
MW-5	8/31/99	250	NA	<1.0	<1.0	<1.0	1	NA
	11/23/99	300	NA	<5.0	<5.0	<5.0	<5.0	NA
	3/1/00	340	50	<1.0	<1.0	<1.0	<2.0	100
MW-6	8/31/99	140,000	NA	77	18	31	49	NA
	11/23/99	6,100	NA	45	14	6.9	48	NA
	3/1/00	22,000	2,800	6.8	<2.0	<2.0	<10	<5.0
MW-7	8/31/99	1,400	NA	<1.0	2.9	2.3	2.7	NA
	11/23/99	530	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	640	860	<1.0	<1.0	<1.0	<2.0	<20
MW-8	8/31/99	230	NA	<1.0	<1.0	1.2	<1.0	NA
	11/23/99	220	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	260	150	<1.0	<1.0	<1.0	<2.0	<5.0
MW-9	8/31/99	2,800	NA	<1.0	<1.0	<1.0	1.1	NA
	11/23/99	1,300	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	510	<50	<1.0	<1.0	<1.0	<2.0	<5.0
MW-10	8/31/99	1,100	NA	<1.0	1.2	2.0	<1.0	NA
	11/23/99	1,200	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	1,300	540	<1.0	<1.0	<1.0	<2.0	12
W-1	3/1/00	1,800	3,400	20	5.3	30	23.8	<5.0
W-4	3/1/00	190	<50	1.1	<1.0	<1.0	<2.0	<5.0

Notes:
ppb: parts per billion
TPH: total petroleum hydrocarbons
MCL: maximum contaminant level
NA: not analyzed

APPENDIX A

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

AC TRANSIT - EMERYVILLE
FIRST QUARTER 2000

FIELD PERSONNEL: Greg Pedersen / Chris Walsh

WELL OR LOCATION	DATE	TIME	MEASUREMENT	CODE	COMMENTS
MW-1	3-1-00	1517	3.65	SWL	
MW-2	3-2-00	1444	3.11	↓	
MW-3	3-1-00	1701	4.82	↓	
MW-4	3-1-00	1641	4.74	↓	
MW-5	3-1-00	1602	3.31	↓	
MW-6	3-2-00	1054	2.86	OIL	
MW-6	↓	↓	2.88	OWI	
MW-7	3-2-00	1148	4.06	SWL	
MW-8	3-2-00	1313	4.48	↓	
MW-9	3-2-00	1401	3.69	↓	
MW-10	3-2-00	1001	9.06	↓	
W-1	3-2-00	1543	4.08	↓	
W-4	3-2-00	1618	3.34	↓	

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

Well ID: MW-1

Project Name: ACTRANSit
Casing Diameter (in): 2
Total Well Depth (ft): 14.50
Depth to Water (ft), before purging: 3.65

Project Number: 792551
Sample Date: 3/1/00
Sample ID: MW1

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1519	7.6	706	19.6	4.95	1.5	0.5
1522	7.2	680	19.8	5.72	3.5	↓
1526	7.2	682	19.9	5.93	5	↓
Final	Purge Vol.	→	6.0 gal.			

Water Volume to be Purged (gal) = 14.50 - 3.65 = 10.85 x .165 = 1.79 x 3 = 5.37
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Trip Blank collected @ 1515

Parameter Collected: 8021, 8015M
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

Sounder / meters washed / rinsed

Comments / Calculations: Centrifigal pump purging
Disposable bailer to sample

start time: 1517
Stop time: 1529

collection time: 1535

Well ID: MW-2

Project Name: ACTransit
Casing Diameter (in): 2
Total Well Depth (ft): 14.56
Depth to Water (ft), before purging: 3.11

Project Number: 792551
Sample Date: 3-2-00
Sample ID: MW-2

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1449	7.1	757	21.4	3.92	1.5	0.5
1452	7.1	698	21.5	4.47	3	↓
1455	7.2	701	21.2	4.42	5	↓
Final Purge Volume →				→	6 gal	

Water Volume to be Purged (gal) = 14.56-3.11 = 11.45 x .165 = 1.89 x 3 = 5.67
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed: Sounder / Meters washed / rinsed

Comments / Calculations:

centrifugal ~~N/A~~ pump
Disposable bailer to sample
Start time @ 1444
Stop time @ 1457
collection time @ 1500

Signature

Well ID: MW-3

Project Name: AC Transit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3/1/00
Total Well Depth (ft): 14.68
Sample ID: MW-3
Depth to Water (ft), before purging: 4.82

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1704	7.1	758	19.1	6.17	1.5	.45
1707	7.0	763	19.1	6.76	3.0	↓
1710	7.0	761	19.1	7.28	4.5	↓
Total Volume Purged →			→ 5 gal			

Water Volume to be Purged (gal) = 14.68 - 4.82 = 9.86 x .165 = 1.63 x 3 = 4.9
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:
Sounder / meters washed / rinsed

Comments / Calculations: Centrifugal pump to purge
Disposable bailer to sample
Start time @ 1701 collection time @ 1730
Stop time @ 1712

Sean Petersen

Well ID: MW-4

Project Name: AC Transit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3/1/00
Total Well Depth (ft): 14.95
Sample ID: MW-4
Depth to Water (ft), before purging: 4.74

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1644	7.0	765	18.7	7.2	1.5	.56
1646	7.0	770	19.0	7.89	3.0	↓
1648	7.0	763	19.1	8.45	4.5	↓
Total Volume Purged →			5.19			

Water Volume to be Purged (gal) = 14.95 - 4.74 = 10.21 x .165 = 1.68 = 5.05
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015 M
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed: Sounder / meters Washed / rinsed

Comments / Calculations: Centrifugal pump to purge
Disposable bailer to sample

Start time @ 1641
Stop time @ 1650
collection time @ 1718

Signature: [signature] 3/1/00

Well ID: MW-5

Project Name: AC Transit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3/1/00
Total Well Depth (ft): 19.49
Sample ID: MW-5
Depth to Water (ft), before purging: 3.31

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1606	7.2	722	19.8	4.30	2.5	.45
1614	7.1	718	20.3	4.87	5	↓
1620	7.0	718	20.7	5.02	7.5	↓
Total Volume Purged ——→ 8.5g						

Water Volume to be Purged (gal) = 19.49 - 3.31 = 16.18 x .165 = 2.67 x 3 = 8.0g.
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

Sounder / meters washed / rinsed

Comments / Calculations:

centrifugal pump to purge
Disposable bailer to sample

Start time @ 1602
Stop time @ 1621

collection time @ 1625

Well ID: MW-6

Project Name: AC Transit
Casing Diameter (in): 2
Total Well Depth (ft): 19.64
Depth to Water (ft), before purging: 2.82

Project Number: 792551
Sample Date: 3-2-00
Sample ID: MW-6

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1100	7.0	1072	20.2	3.10	2.5	.45
1105	7.0	1042	20.4	3.13	5.0	↓
1111	6.9	1048	20.8	3.15	7.5	↓
Total Volume Purged = 8.5 g						

Water Volume to be Purged (gal) = 19.64 - 2.82 = 16.82 x .165 = 2.77 x 3 = 8.33
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015 M
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

Sounder / meters washed / rinsed

Comments / Calculations: centrifugal pump to purge
Disposable bailer to sample
Start time @ 1054 collection time @ 1125
Stop time @ 1113

Sean Rooks 3-2-00

Well ID: MW-7

Project Name: AcTransit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3-2-00
Total Well Depth (ft): 24.53
Sample ID: MW-7
Depth to Water (ft), before purging: 4.06

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1156	6.6	1048	20.8	17.00	3	0.4
1226	6.6	1071	23.6	10.72	6	0.15
1253	6.6	1087	23.9	12.90	9	↓
Total Volume Purged →			10.5			

Water Volume to be Purged (gal) = 24.53 - 4.06 = 20.47 x 0.165 = 3.4 x 3 = 10.2
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

Sounder / meters washed / rinsed

Comments / Calculations:

Centrifugal pump to purge
Disposable bailer to sample
Starting @ 1148
Stop time @ 1205
Resume @ 1225, @ 1255
Collection time @ 1300

Signature: [signature]

Well ID: MW-8

Project Name: AC Transit 2
Casing Diameter (in):
Total Well Depth (ft): 20.67
Depth to Water (ft), before purging: 4.48

Project Number: 79255J
Sample Date: 3-2-00
Sample ID: MW-8

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1321	6.9	1520	20.4	7.78	2.5	0.4
1327	6.9	1355	21.4	7.92	5	↓
1332	6.9	1338	21.5	8.35	7.5	↓
Final Purge Volume →					8.19	

Water Volume to be Purged (gal) = 20.67 - 4.48 = 16.19 x .165 = 2.67 x 3 = 8.01
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m

Sample Appearance

____ OVA Reading (ppm)

____ Suspended Solids (describe):

Decontamination Performed:

Sounder/meters washed/rinsed

Comments / Calculations:

Centrifugal pump to purge
Disposable Bailer to sample
Start time @ 1313
Stop time @ 1333
collection time @ 1340

Well ID: MW-9

Project Name: AC Transit
Casing Diameter (in): 2
Total Well Depth (ft): 20.52
Depth to Water (ft), before purging: 3.69

Project Number: 792551
Sample Date: 3-2-00
Sample ID: MW-9

Development Method: NA

___ Bailer: ___ Teflon ___ Stainless Steel ___ PVC ___ ABS Plastic

___ Pump: ___ Dedicated Submersible Pump ___ Bladder Pump
___ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1407	6.8	1162	22.2	8.55	2.5	.43
1413	6.9	1221	22.1	9.72	5	↓
1418	6.9	1320	22.4	10.2	7.5	↓
Total Volume Purged →			9.9			

Water Volume to be Purged (gal) = 20.52 - 3.69 = 16.83 x .165 = 2.78 = 8.33
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ___ Teflon ___ Stainless Steel ___ PVC ___ ABS Plastic

___ Pump: ___ Dedicated Submersible Pump ___ Bladder Pump
___ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015 m

Sample Appearance

___ OVA Reading (ppm)

___ Suspended Solids (describe):

Decontamination Performed: Sounder/Meters washed/rinsed

Comments / Calculations:

centrifugal pump to purge
Disposable bailer to sample

Start time @ 1401 collection time @ 1430
Stop time @ 1422

Well ID: MW-10

Project Name: AC Transit
Casing Diameter (in): 2
Total Well Depth (ft): 24.15
Depth to Water (ft), before purging: 9.06

Project Number: 792551
Sample Date: 3-2-00
Sample ID: MW-10

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Non-Dedicated Submersible Pump ____ Bladder Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1006	7.0	849	18	10.05	2.0	.44
1012	7.0	835	18.6	10.06	4.5	↓
1016	7.0	832	18.6	10.06	7.0	↓
Final Volume Purged →			→ 8g			

Water Volume to be Purged (gal) = 24.15 - 9.06 = 15.09 x .165 = 2.49 x 3 = 7.47
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Non-Dedicated Submersible Pump ____ Bladder Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m

Sample Appearance

____ OVA Reading (ppm)

____ Suspended Solids (describe):

Decontamination Performed: Sounder/Meters washed/rinsed

Comments / Calculations: Centrifugal pump to purge
Disposable bailer to Sample
Start time @ 1001 collection time @ 1025
Stop time @ 1019

Signature: [signature]

Well ID: W-1

Project Name: ACTransit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3-2-00
Total Well Depth (ft): 16.43
Sample ID: W-1
Depth to Water (ft), before purging: 4.08

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1546	6.9	947	20.2	4.49	2	.5
1549	6.9	961	20.6	4.59	4	
1553	6.9	965	20.6	4.60	6.5	↓
Total Volume Purged ——→			6.2g			

Water Volume to be Purged (gal) = 16.43 − 4.08 = 12.35 × 0.165 = 2.04 × 3 = 6.11
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance brown, strong hydrocarbon odor
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

Sounder / Meters Washed / rinsed

Comments / Calculations:

Centrifugal pump to purge
Disposable bailer to sample
Start time @ 1543
Stop time @ 1555
collection time @ 1600

Well ID: W-4

Project Name: ACTransit
Project Number: 792551
Casing Diameter (in): 2
Sample Date: 3-2-00
Total Well Depth (ft): 16.93
Sample ID: W-4
Depth to Water (ft), before purging: 3.34

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1623	7.0	1078	21.0	4.63	2	.5
1626	7.0	1025	20.3	4.80	4	1
1629	7.0	1005	20.8	4.91	6	↓
Total Volume Purged →			7g			

Water Volume to be Purged (gal) = 16.93 - 3.34 = 13.59 x .165 = 2.24 = 6.72
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015m
Sample Appearance
____ OVA Reading (ppm) rust colored, slight hydrocarbon odor
____ Suspended Solids (describe):

Decontamination Performed:

Sounder/Meters washed/rinsed

Comments / Calculations:

Centrifugal pump to purge
Disposable bailer to sample
Start time @ 1618 collection time @
Stop time @ 1632 1640

Signature: Greg Pedersen

Quanterra
880 Riverside Parkway
West Sacramento, California 95605-1500

916 373-5600 Telephone
916 372-1059 Fax

March 28, 2000

QUANTERRA INCORPORATED PROJECT NUMBER: G0C040142
PO/CONTRACT: 792551

Brad Wright
Safety Kleen Consulting
2233 Santa Clara Ave
Suite 7
Alameda, CA 94501

Dear Mr. Wright,

This report contains the analytical results for the samples received under chain of custody by Quanterra Incorporated on 3/3/00. These samples are associated with your AC Transit Emeryville project.

The case narrative is an integral part of this report.

Preliminary results were sent via facsimile on March 28, 2000.

If you have any questions, please feel free to call me at (916)374-4414.

Sincerely,

Bonnie J McNeill

Bonnie J. McNeill
Project Manager

quanterra

CASE NARRATIVE

QUANTERRA INCORPORATED PROJECT NUMBER G0C040142

WATER, CA LUFT, TVPH (Gas)/BTEX + MTBE by 8021B

Sample G0C040142-3 required reanalysis at a 2X dilution to report MTBE only. The initial analysis exceeded the calibrated linear range of the instrument.

The following samples exceed the 70-130% surrogate recovery limit due to matrix visible on the chromatograms:

G0C040142-6 (133% BFB)
G0C040142-7 (295% BFB)
G0C040142-8 (140% BFB)
G0C040142-12 (214% BFB)

WATER, 8015 MOD, TEPH

Surrogate recovery for G0C040142-6 was higher than the upper control limit due to the contribution from the unknown hydrocarbon present in the sample.

There were no other anomalies associated with this project.

Quanterra - Western Region

Quality Control Definitions

QC Parameter	Definition
QC Batch	A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.
Duplicate Control Sample (DCS)	Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD.
Duplicate Sample (DU)	A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.
Laboratory Control Sample (LCS)	A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked.
Method Blank (MB)	A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.
Surrogate Spike	Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.

Source: Quanterra® Quality Control Program, Policy QA-003, Rev. 0, 8/19/96.

Quanterra

TABLE OF CONTENTS

QUANTERRA INCORPORATED PROJECT NUMBER G0C040142

Sample Summary
G0C040142

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
D99DM	1	TRIP BLANK	3/1/00 03:15 PM	3/3/00 06:30 PM
D99DV	2	MW-1	3/1/00 03:35 PM	3/3/00 06:30 PM
D99DX	3	MW-5	3/1/00 04:25 PM	3/3/00 06:30 PM
D99E1	4	MW-4	3/1/00 05:18 PM	3/3/00 06:30 PM
D99E4	5	MW-3	3/1/00 05:30 PM	3/3/00 06:30 PM
D99E6	6	MW-10	3/2/00 10:25 AM	3/3/00 06:30 PM
D99EE	7	MW-6	3/2/00 11:25 AM	3/3/00 06:30 PM
D99EG	8	MW-7	3/2/00 01:00 PM	3/3/00 06:30 PM
D99EH	9	MW-8	3/2/00 01:40 PM	3/3/00 06:30 PM
D99EJ	10	MW-9	3/2/00 02:30 PM	3/3/00 06:30 PM
D99EK	11	MW-2	3/2/00 03:00 PM	3/3/00 06:30 PM
D99EL	12	W-1	3/2/00 04:00 PM	3/3/00 06:30 PM
D99EM	13	W-4	3/2/00 04:40 PM	3/3/00 06:30 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must no be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weigh

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
Safety Kleen Consulting	Brad Wright	3/1/00	27607
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page**
2233 Santa Clara Ave, #7	510 337 8660		1 of 2

City	State	Zip Code	Site Contact	Lab Contact
Alameda	CA	94501		Bonnie M.

Project Name: ACTransit - Emeryville

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.: 792551

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8021	Special Instructions/ Conditions of Receipt
(A) Trip Blank	3/1/00	1515	X							X				X	Gas/BTEX/MTBE
MW-1	↓	1535	↓							↓				↓	
MW-5	↓	1625	↓							↓				↓	
MW-4	↓	1718	↓							↓				↓	
MW-3	↓	1730	↓							↓				↓	
MW-10	3/2/00	1025	↓							↓				↓	
MW-6	↓	1125	↓							↓				↓	
MW-7	↓	1300	↓							↓				↓	
MW-8	↓	1340	↓							↓				↓	
MW-9	↓	1430	↓							↓				↓	
MW-2	↓	1500	↓							↓				↓	
W-1	↓	1600	↓							↓				↓	

RECEIVED IN GOOD CONDITION UNDER COC
MAR - 4 2000
INIT: [illegible]

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

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

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

QC Requirements (Specify): Standard

	Date	Time		Date	Time
1. Relinquished By: [signature]	3/3/00	1400	1. Received By: Courier	3/3/00	1400
2. Relinquished By			2. Received By: [signature]	3-3-00	1930
3. Relinquished By			3. Received By		

Comments: (A) 1 of 3 VOAs w/ air bubble

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Safety Kleen Consulting	Project Manager: Brad Wright	Date: 3/2/00	Chain of Custody Number: 26788
Address: 2233 Santa Clara Ave #7	Telephone Number (Area Code)/Fax Number: 510 337 8660	Lab Number:	Page 2 of 2
City: Alameda / State: CA / Zip Code: 94501	Site Contact:	Lab Contact: Bonnie M	
Project Name: AC Transit Emeryville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 792551			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8021	Special Instructions/ Conditions of Receipt
W-4	3/2/00	1640	X						X				Gas/BTEX/MTBE

RECEIVED IN GOOD CONDITION UNDER COC
MAR - 4
IN:

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
[ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [X] 21 Days [ ] Other _____

QC Requirements (Specify): Standard

1. Relinquished By:	Date: 3/3/00	Time: 1400	1. Received By: courier	Date: 3/3/00	Time: 1400
2. Relinquished By:	Date:	Time:	2. Received By:	Date: 3-3-00	Time: 1930
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

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

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Safety Kleen Consulting	Project Manager: Brad Wright	Date: 3/1/00	Chain of Custody Number: 27500
Address: 2233 Santa Clara Ave., #7	Telephone Number (Area Code)/Fax Number: 510 337 8660	Lab Number:	Page ____ of ____
City: Alameda / State: CA / Zip Code: 94501	Site Contact:	Lab Contact: Bonnie M	
Project Name: AC Transit - Emeryville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 792551			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	Containers & Preservatives: H2SO4	Containers & Preservatives: HNO3	Containers & Preservatives: HCl	Containers & Preservatives: NaOH	Containers & Preservatives: ZnAc/NaOH	Analysis: 8015M
MW-1	3/1/00	1535	X			X						X
MW-5		1625										
MW-4		1718										
MW-3		1730										
MW-10	3/2/00	1025										
MW-6		1125										
MW-7		1300										
MW-8		1340										
MW-9		1430										
MW-2		1500										
W-1		1600										
W-4		1640										

Special Instructions/ Conditions of Receipt: Diesel/MotorOil

RECEIVED IN GOOD CONDITION UNDER COC
MAR - 4 2000
INI:

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

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

Turn Around Time Required
[ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [X] 21 Days [ ] Other ____

QC Requirements (Specify): Standard

	Date	Time
1. Relinquished By: Chris Labak	3/3/00	1400
2. Relinquished By:		
3. Relinquished By:		

	Date	Time
1. Received By: Courier	3/3/00	1400
2. Received By: Chris Hyde	3-3-00	1930
3. Received By:		

Comments

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

Quanterra

WATER, CA LUFT, TVPH (Gas)
BTEX + MTBE by 8021B

SAFETY KLEEN CONSULTING

Client Sample ID: TRIP BLANK

GC Volatiles

Lot-Sample #...: G0C040142-001 **Work Order #...:** D99DM102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076362
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	108	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: TRIP BLANK

GC Volatiles

Lot-Sample #...: G0C040142-001 **Work Order #...:** D99DM101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	96	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...: G0C040142-002	**Work Order #...:** D99DV102	**Matrix.....:** WATER	
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/08/00		
Prep Batch #...: 0076362			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**62**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	112	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...: G0C040142-002	**Work Order #...:** D99DV103	**Matrix.....:** WATER
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/08/00	
Prep Batch #...: 0076381		
Dilution Factor: 1	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**68**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	92	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Volatiles

Lot-Sample #...: G0C040142-003	**Work Order #...:** D99DX102	**Matrix.....:** WATER	
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/08/00		
Prep Batch #...: 0076362			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**50**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	108	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Volatiles

Lot-Sample #...: G0C040142-003 **Work Order #...:** D99DX103 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**100 E**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	93	(70 - 130)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Volatiles

Lot-Sample #...: G0C040142-003	**Work Order #...:** D99DX203	**Matrix.....:** WATER
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/14/00	**Analysis Date..:** 03/14/00	
Prep Batch #...: 0076400		
Dilution Factor: 2	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl tert-butyl ether	**100**	**10**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	107	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Volatiles

Lot-Sample #...: G0C040142-004 **Work Order #...:** D99E1102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076362
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Volatiles

Lot-Sample #...: G0C040142-004 **Work Order #...:** D99E1103 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	92	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...: G0C040142-005 **Work Order #...:** D99E4102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076362
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...: G0C040142-005 **Work Order #...:** D99E4103 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	96	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Volatiles

Lot-Sample #...: G0C040142-006	Work Order #...: D99E6102	Matrix.....: WATER
Date Sampled...: 03/02/00	Date Received..: 03/03/00	
Prep Date.....: 03/08/00	Analysis Date..: 03/08/00	
Prep Batch #...: 0076362		
Dilution Factor: 1	Method.....: DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**540**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	133 *,I	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

I Matrix interference.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Volatiles

Lot-Sample #...: G0C040142-006 **Work Order #...:** D99E6103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**12**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	98	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Volatiles

Lot-Sample #...: G0C040142-007	**Work Order #...:** D99EE102	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/08/00	
Prep Batch #...: 0076362		
Dilution Factor: 1	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**2800**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	295 *,I	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

I Matrix interference.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Volatiles

Lot-Sample #...: G0C040142-007 **Work Order #...:** D99EE103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**6.8**	**1.0**	**ug/L**
Ethylbenzene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	10	ug/L
o-Xylene	ND	4.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	100	(70 - 130)

NOTE(S):

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Volatiles

Lot-Sample #...: G0C040142-008	**Work Order #...:** D99EG102	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/14/00	**Analysis Date..:** 03/14/00	
Prep Batch #...: 0076399		
Dilution Factor: 1	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**860**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	140 *,I	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

I Matrix interference.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Volatiles

Lot-Sample #...: G0C040142-008	**Work Order #...:** D99EG103	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/14/00	**Analysis Date..:** 03/14/00	
Prep Batch #...: 0076400		
Dilution Factor: 1	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	102	(70 - 130)

NOTE(S):

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Volatiles

Lot-Sample #...: G0C040142-009	**Work Order #...:** D99EH102	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/09/00	
Prep Batch #...: 0076362		
Dilution Factor: 1	**Method.....:** DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**150**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	123	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Volatiles

Lot-Sample #...: G0C040142-009 **Work Order #...:** D99EH103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	92	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Volatiles

Lot-Sample #...: G0C040142-010 **Work Order #...:** D99EJ102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0076362
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Volatiles

Lot-Sample #...: G0C040142-010 **Work Order #...:** D99EJ103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	94	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...:	G0C040142-011	**Work Order #...:**	D99EK102	**Matrix.....:**	WATER
Date Sampled...:	03/02/00	**Date Received..:**	03/03/00		
Prep Date.....:	03/08/00	**Analysis Date..:**	03/09/00		
Prep Batch #...:	0076362				
Dilution Factor:	1	**Method.....:**	DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...: G0C040142-011 **Work Order #...:** D99EK103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0076381
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**81**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	93	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Volatiles

Lot-Sample #...: G0C040142-012 **Work Order #...:** D99EL102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0076362
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**3400**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	214 *,I	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

I Matrix interference.

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SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Volatiles

Lot-Sample #...:	G0C040142-012	**Work Order #...:**	D99EL103	**Matrix.....:**	WATER
Date Sampled...:	03/02/00	**Date Received..:**	03/03/00		
Prep Date.....:	03/08/00	**Analysis Date..:**	03/09/00		
Prep Batch #...:	0076381				
Dilution Factor:	1	**Method.....:**	DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**20**	**1.0**	**ug/L**
Ethylbenzene	**30**	**1.0**	**ug/L**
Toluene	**5.3**	**1.0**	**ug/L**
m-Xylene & p-Xylene	**22**	**2.0**	**ug/L**
o-Xylene	**1.8**	**1.0**	**ug/L**
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	113	(70 - 130)

Quanterra

SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Volatiles

Lot-Sample #...: G0C040142-013 **Work Order #...:** D99EM102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076399
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Volatiles

Lot-Sample #...: G0C040142-013 **Work Order #...:** D99EM103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 **Date Received..:** 03/03/00
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076400
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**1.1**	**1.0**	**ug/L**
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

QC DATA ASSOCIATION SUMMARY

G0C040142

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
002	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
003	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
	WATER	DHS CA LUFT		0076400	
004	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
005	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
006	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
007	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
008	WATER	DHS CA LUFT		0076399	
	WATER	DHS CA LUFT		0076400	
009	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
010	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
011	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
012	WATER	DHS CA LUFT		0076362	
	WATER	DHS CA LUFT		0076381	
013	WATER	DHS CA LUFT		0076399	
	WATER	DHS CA LUFT		0076400	

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PN0101 **Matrix.....:** WATER
MB Lot-Sample #: G0C160000-362

Prep Date.....: 03/08/00
Analysis Date..: 03/08/00 **Prep Batch #...:** 0076362
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Gasoline)	ND	50	ug/L	DHS CA LUFT
Unknown Hydrocarbon	ND	50	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PRR101 **Matrix.....:** WATER
MB Lot-Sample #: G0C160000-399

Prep Date.....: 03/14/00
Analysis Date..: 03/14/00 **Prep Batch #...:** 0076399
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Gasoline)	ND	50	ug/L	DHS CA LUFT
Unknown Hydrocarbon	ND	50	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PQP101 **Matrix.....:** WATER
MB Lot-Sample #: G0C160000-381

Prep Date.....: 03/08/00
Analysis Date..: 03/08/00 **Prep Batch #...:** 0076381
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	DHS CA LUFT
Ethylbenzene	ND	1.0	ug/L	DHS CA LUFT
Toluene	ND	1.0	ug/L	DHS CA LUFT
m-Xylene & p-Xylene	ND	2.0	ug/L	DHS CA LUFT
o-Xylene	ND	1.0	ug/L	DHS CA LUFT
Methyl tert-butyl ether	ND	5.0	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	98	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PT2101 **Matrix.....:** WATER
MB Lot-Sample #: G0C160000-400

Prep Date.....: 03/14/00
Analysis Date..: 03/14/00 **Prep Batch #...:** 0076400
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	DHS CA LUFT
Ethylbenzene	ND	1.0	ug/L	DHS CA LUFT
Toluene	ND	1.0	ug/L	DHS CA LUFT
m-Xylene & p-Xylene	ND	2.0	ug/L	DHS CA LUFT
o-Xylene	ND	1.0	ug/L	DHS CA LUFT
Methyl tert-butyl ether	ND	5.0	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PN0102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-362 D9PN0103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076362
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Gasoline)	**1000**	**1040**	**ug/L**	**104**		**DHS CA LUFT**
	1000	**1010**	**ug/L**	**101**	**2.6**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(70 - 130)
	103	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PQP102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-381 D9PQP103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.51**	**ug/L**	**95**		**DHS CA LUFT**
	10.0	**9.53**	**ug/L**	**95**	**0.24**	**DHS CA LUFT**
Ethylbenzene	**10.0**	**9.11**	**ug/L**	**91**		**DHS CA LUFT**
	10.0	**9.09**	**ug/L**	**91**	**0.25**	**DHS CA LUFT**
Toluene	**10.0**	**9.53**	**ug/L**	**95**		**DHS CA LUFT**
	10.0	**9.39**	**ug/L**	**94**	**1.4**	**DHS CA LUFT**
m-Xylene & p-Xylene	**20.0**	**19.1**	**ug/L**	**95**		**DHS CA LUFT**
	20.0	**18.8**	**ug/L**	**94**	**1.4**	**DHS CA LUFT**
o-Xylene	**10.0**	**9.14**	**ug/L**	**91**		**DHS CA LUFT**
	10.0	**8.92**	**ug/L**	**89**	**2.4**	**DHS CA LUFT**
Methyl tert-butyl ether	**10.0**	**9.10**	**ug/L**	**91**		**DHS CA LUFT**
	10.0	**8.67**	**ug/L**	**87**	**4.8**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PRR102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-399 D9PRR103-LCSD
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076399
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Gasoline)	**1000**	**1040**	**ug/L**	**104**		**DHS CA LUFT**
	1000	**1050**	**ug/L**	**105**	**1.1**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	112	(70 - 130)
	107	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PT2102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-400 D9PT2103-LCSD
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076400
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.34**	**ug/L**	**93**		**DHS CA LUFT**
	10.0	**9.34**	**ug/L**	**93**	**0.060**	**DHS CA LUFT**
Ethylbenzene	**10.0**	**9.01**	**ug/L**	**90**		**DHS CA LUFT**
	10.0	**9.01**	**ug/L**	**90**	**0.010**	**DHS CA LUFT**
Toluene	**10.0**	**9.35**	**ug/L**	**94**		**DHS CA LUFT**
	10.0	**9.30**	**ug/L**	**93**	**0.53**	**DHS CA LUFT**
m-Xylene & p-Xylene	**20.0**	**18.8**	**ug/L**	**94**		**DHS CA LUFT**
	20.0	**18.8**	**ug/L**	**94**	**0.18**	**DHS CA LUFT**
o-Xylene	**10.0**	**8.99**	**ug/L**	**90**		**DHS CA LUFT**
	10.0	**8.93**	**ug/L**	**89**	**0.67**	**DHS CA LUFT**
Methyl tert-butyl ether	**10.0**	**9.48**	**ug/L**	**95**		**DHS CA LUFT**
	10.0	**9.02**	**ug/L**	**90**	**5.0**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Canberra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PN0102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-362 D9PN0103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076362
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	**104**	**(70 - 130)**			**DHS CA LUFT**
	101	**(70 - 130)**	**2.6**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(70 - 130)
	103	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PQP102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-381 D9PQP103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0076381
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**95**	**(70 - 130)**			**DHS CA LUFT**
	95	**(70 - 130)**	**0.24**	**(0-35)**	**DHS CA LUFT**
Ethylbenzene	**91**	**(70 - 130)**			**DHS CA LUFT**
	91	**(70 - 130)**	**0.25**	**(0-35)**	**DHS CA LUFT**
Toluene	**95**	**(70 - 130)**			**DHS CA LUFT**
	94	**(70 - 130)**	**1.4**	**(0-35)**	**DHS CA LUFT**
m-Xylene & p-Xylene	**95**	**(70 - 130)**			**DHS CA LUFT**
	94	**(70 - 130)**	**1.4**	**(0-35)**	**DHS CA LUFT**
o-Xylene	**91**	**(70 - 130)**			**DHS CA LUFT**
	89	**(70 - 130)**	**2.4**	**(0-35)**	**DHS CA LUFT**
Methyl tert-butyl ether	**91**	**(70 - 130)**			**DHS CA LUFT**
	87	**(70 - 130)**	**4.8**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PRR102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-399 D9PRR103-LCSD
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076399
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	**104**	**(70 - 130)**			**DHS CA LUFT**
	105	**(70 - 130)**	**1.1**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	112	(70 - 130)
	107	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0C040142 **Work Order #...:** D9PT2102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C160000-400 D9PT2103-LCSD
Prep Date.....: 03/14/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0076400
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**93**	**(70 - 130)**			**DHS CA LUFT**
	93	**(70 - 130)**	**0.060**	**(0-35)**	**DHS CA LUFT**
Ethylbenzene	**90**	**(70 - 130)**			**DHS CA LUFT**
	90	**(70 - 130)**	**0.010**	**(0-35)**	**DHS CA LUFT**
Toluene	**94**	**(70 - 130)**			**DHS CA LUFT**
	93	**(70 - 130)**	**0.53**	**(0-35)**	**DHS CA LUFT**
m-Xylene & p-Xylene	**94**	**(70 - 130)**			**DHS CA LUFT**
	94	**(70 - 130)**	**0.18**	**(0-35)**	**DHS CA LUFT**
o-Xylene	**90**	**(70 - 130)**			**DHS CA LUFT**
	89	**(70 - 130)**	**0.67**	**(0-35)**	**DHS CA LUFT**
Methyl tert-butyl ether	**95**	**(70 - 130)**			**DHS CA LUFT**
	90	**(70 - 130)**	**5.0**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

WATER, 8015 MOD, TEPH

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #...: G0C040142-002	**Work Order #...:** D99DV101	**Matrix.....:** WATER
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00	
Prep Batch #...: 0068352		
Dilution Factor: 1	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**310**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	120	(66 - 136)

NOTE(S):

The unknown from n-C08 to n-C38 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Semivolatiles

Lot-Sample #...: G0C040142-003	**Work Order #...:** D99DX101	**Matrix.....:** WATER	
Date Sampled...: 03/01/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00		
Prep Batch #...: 0068352			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**340**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	118	(66 - 136)

NOTE(S):

The unknown from n-C08 to n-C38 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Semivolatiles

Lot-Sample #...: G0C040142-004 Work Order #...: D99E1101 Matrix.....: WATER
Date Sampled...: 03/01/00 Date Received..: 03/03/00
Prep Date.....: 03/08/00 Analysis Date..: 03/25/00
Prep Batch #...: 0068352
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	118	(66 - 136)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #...: G0C040142-005 **Work Order #...:** D99E4101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 **Date Received..:** 03/03/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/25/00
Prep Batch #...: 0068352
Dilution Factor: 1 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	ND	250	ug/L
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	107	(66 - 136)

NOTE(S):

A motor oil range unknown less than the motor oil detection limit is present, therefore the reporting limit is raised.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Semivolatiles

Lot-Sample #...: G0C040142-006	**Work Order #...:** D99E6101		**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00		
Prep Batch #...: 0068352			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**1300**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	149 *	(66 - 136)

NOTE(S):

* Surrogate recovery is outside stated control limits.

The unknown from n-C08 to n-C34 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Semivolatiles

Lot-Sample #...: G0C040142-007	**Work Order #...:** D99EE101	**Matrix.....:** WATER	
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/27/00		
Prep Batch #...: 0068352			
Dilution Factor: 50	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND Q	2500	ug/L
Unknown Hydrocarbon	**22000**	**2500**	**ug/L**
TPH (as Motor Oil)	ND	12000	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	0.0 SRD	(66 - 136)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

The unknown from n-C08 to n-C22 is quantitated with all peaks from n-C08 to n-C36 and based on diesel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Semivolatiles

Lot-Sample #...: G0C040142-008	**Work Order #...:** D99EG101	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00	
Prep Batch #...: 0068352		
Dilution Factor: 1	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**640**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	122	(66 - 136)

NOTE(S):

The unknown from n-C08 to n-C31 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Semivolatiles

Lot-Sample #...: G0C040142-009	**Work Order #...:** D99EH101	**Matrix.....:** WATER
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00	
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00	
Prep Batch #...: 0068352		
Dilution Factor: 1	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**260**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	107	(66 - 136)

NOTE(S):

The unknown from n-C08 to n-C31 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Semivolatiles

Lot-Sample #...:	G0C040142-010	Work Order #...: D99EJ101	Matrix.....: WATER
Date Sampled...:	03/02/00	Date Received..: 03/03/00	
Prep Date.....:	03/08/00	Analysis Date..: 03/25/00	
Prep Batch #...:	0068352		
Dilution Factor:	1	Method.....: SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**510**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	120	(66 - 136)

NOTE(S):

The unknown from n-C10 to n-C40 is quantitated with all peaks from n-C08 to n-C36 and based on motor oil (n-C19 to n-C36).

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SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Semivolatiles

Lot-Sample #...: G0C040142-011	**Work Order #...:** D99EK101	**Matrix.....:** WATER	
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00		
Prep Batch #...: 0068352			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**510**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	111	(66 - 136)

NOTE(S):

The unknown from n-C10 to n-C40 is quantitated with all peaks from n-C08 to n-C36 and based on motor oil (n-C19 to n-C36).

SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Semivolatiles

Lot-Sample #...: G0C040142-012	**Work Order #...:** D99EL101	**Matrix.....:** WATER	
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/27/00		
Prep Batch #...: 0068352			
Dilution Factor: 5	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND Q	250	ug/L
Unknown Hydrocarbon	**1800**	**250**	**ug/L**
TPH (as Motor Oil)	ND	1200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	108	(66 - 136)

NOTE(S):

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

The unknown from n-C08 to n-C22 is quantitated with all peaks from n-C08 to n-C36 and based on diesel fuel (n-C10 to n-C24).

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SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Semivolatiles

Lot-Sample #...: G0C040142-013	**Work Order #...:** D99EM101	**Matrix.....:** WATER	
Date Sampled...: 03/02/00	**Date Received..:** 03/03/00		
Prep Date.....: 03/08/00	**Analysis Date..:** 03/25/00		
Prep Batch #...: 0068352			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**190**	**50**	**ug/L**
TPH (as Motor Oil)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	111	(66 - 136)

NOTE(S):

The unknown from n-C10 to n-C32 is quantitated with all peaks from n-C08 to n-C32 and based on diesel fuel (n-C10 to n-C24).

QC DATA ASSOCIATION SUMMARY

G0C040142

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
002	WATER	SW846 8015 MOD		0068352	
003	WATER	SW846 8015 MOD		0068352	
004	WATER	SW846 8015 MOD		0068352	
005	WATER	SW846 8015 MOD		0068352	
006	WATER	SW846 8015 MOD		0068352	
007	WATER	SW846 8015 MOD		0068352	
008	WATER	SW846 8015 MOD		0068352	
009	WATER	SW846 8015 MOD		0068352	
010	WATER	SW846 8015 MOD		0068352	
011	WATER	SW846 8015 MOD		0068352	
012	WATER	SW846 8015 MOD		0068352	
013	WATER	SW846 8015 MOD		0068352	

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METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: G0C040142 **Work Order #...:** D9E1D101 **Matrix.....:** WATER
MB Lot-Sample #: G0C080000-352

Prep Date.....: 03/08/00
Analysis Date..: 03/25/00 **Prep Batch #...:** 0068352
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Diesel)	ND	50	ug/L	SW846 8015 MOD
Unknown Hydrocarbon	ND	50	ug/L	SW846 8015 MOD
TPH (as Motor Oil)	ND	250	ug/L	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	110	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G0C040142 **Work Order #...:** D9E1D102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C080000-352 D9E1D103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/25/00
Prep Batch #...: 0068352
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Diesel)	**300**	**257**	**ug/L**	**86**		**SW846 8015 MOD**
	300	**287**	**ug/L**	**96**	**11**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	106	(66 - 136)
	115	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G0C040142 **Work Order #...:** D9E1D102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C080000-352 D9E1D103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/25/00
Prep Batch #...: 0068352
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Diesel)	**86**	**(50 - 129)**			**SW846 8015 MOD**
	96	**(50 - 129)**	**11**	**(0-23)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	106	(66 - 136)
	115	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters