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December 16, 2005

DH

Mr. Amir Gholami
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Alameda County
DEC 20 2005

Subject: 2005 Groundwater Monitoring Report
Owens-Brockway Glass Container – Oakland, CA

Dear Mr. Gholami:

Attached is the 2005 Groundwater Monitoring Report for the Owens-Brockway Glass Container facility in Oakland. If there are questions regarding its content, please give Chris Kennedy a call at 707-967-8080.

Sincerely,

A handwritten signature in cursive script that reads 'Robert C. Neal'.

Robert C. Neal, P.E.
Environmental Administrator

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**2005 GROUNDWATER MONITORING
REPORT**

**OWENS-BROCKWAY
GLASS CONTAINER FACILITY
OAKLAND, CALIFORNIA**

Alameda County
DEC 20 2005
Environmental Services



CKG Environmental, Inc.

808 Zinfandel Lane
St. Helena, CA 94574

A Report Prepared for:

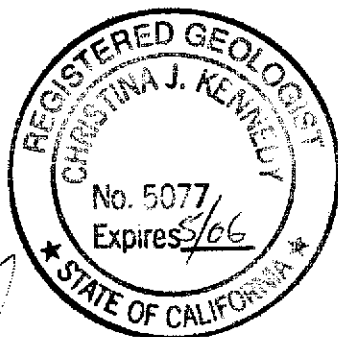
Mr. Mark Tussing
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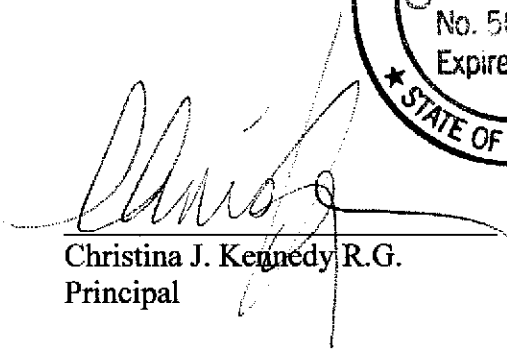
**2005 GROUNDWATER MONITORING
REPORT**

**OWENS-BROCKWAY GLASS CONTAINER FACILITY,
OAKLAND, CALIFORNIA**

November 29, 2005

Prepared by:




Christina J. Kennedy R.G.
Principal

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1.0 EXECUTIVE SUMMARY

The Owens-Brockway glass manufacturing facility is located at 3600 Alameda Avenue in Oakland, California. The site is located to the north of the Oakland Estuary with Fruitvale Avenue to the west, a Home Depot to the east and residences to the north. Onsite facilities include the operating glass manufacturing plant, warehouses, offices and two former underground fuel storage tank areas.

Two underground fuel storage tank (UST) areas existed at the Oakland plant. The first UST area was located on the west side of the plant and included three fuel oil USTs. Impacts by fuel oil to the subsurface were observed when the associated USTs were removed. The second UST area was located near the central part of the plant adjacent to the compressor building. Originally there were four USTs in this area. When they were removed and replaced by two new USTs, a gasoline release to the subsurface was observed.

CKG compiled all the historic data for the site and completed a Cone Penetration Test (CPT) subsurface investigation and installed one offsite monitoring well. This data was used to refine our understanding of the distribution of petroleum hydrocarbons at the site and to evaluate the UST releases with respect to potential closure. A round of groundwater monitoring also was completed to comply with regulatory requirements and to evaluate the existence and distribution of the various types of petroleum hydrocarbons potentially present on and off site.

The recent groundwater monitoring, as well as a review of historic data, shows that the petroleum hydrocarbon plumes at the site are stable and have attenuated substantially over time. The fuel oil release appears to extend only slightly off site. CKG recommends that Owens-Brockway submit this report to the Alameda County Health Agency.

2.0 INTRODUCTION

The following report presents the results and conclusions of the annual of groundwater monitoring in 2005. The work was performed in general accordance with CKG's proposal dated November 15, 2002 with slight modifications as discussed below.

2.1 SITE DESCRIPTION

The Owens-Brockway glass manufacturing facility is located at 3600 Alameda Avenue in Oakland, California, (Plate 1). The site is located to the north of the Oakland Estuary with Fruitvale Avenue to the west, a former retail center to the east and residences to the north. Onsite facilities include the operating glass manufacturing plant, warehouses, offices and two former underground fuel storage tank areas, (Plate 2).

Fuel Oil USTs

One UST site was located on the west side of the plant and included three former USTs, which were used to contain fuel oil. At the time these USTs were removed it was discovered that fuel oil had been released to the subsurface. Owens-Brockway excavated impacted soil at the time the USTs were removed. Floating product associated with the fuel oil release exists and past efforts to remove it have been unsuccessful. This lack of success is mainly due to the clay rich nature of the subsurface and the viscosity of the product. Groundwater monitoring has been ongoing sporadically for the last 16 years. A Geoprobe™ investigation completed in 1999 by Kennedy/Jenks Consultants included collecting groundwater samples from five locations off-site in the downgradient direction. Three of these samples were found to contain petroleum hydrocarbons. This petroleum hydrocarbon was identified to be Stoddard solvent, not fuel oil.

Gasoline USTs

The second UST area was located near the central part of the plant adjacent to the compressor building. Originally there were four USTs in the area. When they were removed and replaced by two new USTs a gasoline release to the subsurface was observed. Owens-Brockway excavated impacted soil at the time the USTs were removed. Groundwater monitoring has shown that the gasoline release has attenuated naturally.

3.0 GROUNDWATER MONITORING

3.1 GROUNDWATER GRADIENT

Depth to groundwater measurements were made on June 30, 2005, before the monitoring wells were sampled. Depth to static ground water was measured from a marked location at the top of the PVC casing. The depth of water was then subtracted from the elevation of the top of the well casing to provide a ground water elevation for each monitoring well. Plate 2 shows groundwater elevations and the interpreted groundwater flow direction. Based on the data measured on June 30 the groundwater flow direction is generally to the south. This groundwater flow direction has been observed in past monitoring events. Monitoring well construction details are presented in Table 1. Depth to water measurements and groundwater elevations are summarized in Table 2. Well sampling and purge logs are contained in Appendix A.

3.2 WELL SAMPLING

On June 30, 2005 a round of groundwater sampling in the monitoring wells was performed. Sheen was observed in MW-2, and MW-6 but they were sampled anyway. The product appeared as a sheen so a thickness could not be measured. MW-1 was covered with glass and was not accessible. MW-9, which is located in the middle of the loading ramp, also could not be safely accessed. The remaining wells were sampled using the following protocol.

- The depth-to-water was measured using a conductivity-based water level indicator.
- The volume of water standing in each well was calculated by subtracting the depth-to-water measurement from the total depth of the well, and multiplying by the appropriate volume conversion factor.
- A minimum of three well volumes of water was purged from each well using a centrifugal pump. The pump was decontaminated prior to use in each well by washing with TSP and rinsing with distilled water. Fresh tubing was used for each well
- Physical parameters of pH and temperature were monitored for stability during purging.

- Sample bottles, provided by the analytical laboratory were filled from a new clean disposable bailer at each well.
- Samples were immediately labeled and placed in an iced sample container. The samples were picked up by the analytical laboratory, under chain-of-custody control the following day.

3.3 CHEMICAL ANALYSIS

Groundwater samples were submitted under chain-of-custody to McCampbell Analytical Laboratory in Pacheco, California. McCampbell is a laboratory certified with the California Department of Health Services under the California Environmental Laboratory Accreditation Program (ELAP) for the requested analyses. The analytical program was completed in general accordance with CKG's proposal dated November 15, 2002 with some additions. The chemical analyses performed include the following:

- Total Petroleum Hydrocarbons quantified as diesel, (TPHd,) motor oil (TPHmo) and gasoline (TPHg) by Modified EPA Method 8015 and;
- Benzene, Toluene, Ethylbenzene, xylenes, and MTBE by EPA Method 8020
- The analytical laboratory also was asked to reanalyze sample with sheen or product by modifying the analytical method to avoid the product. This was done to evaluate how much of the petroleum hydrocarbon detected was actually dissolved in the groundwater.

In addition to asking the laboratory to perform the TPH analysis by the usual 8015 method, CKG also asked the laboratory to re-extract the samples with floating product using a modification. The modification was to avoid the floating layer of product altogether and only analyze water from below that. The purpose of this variation was to evaluate the solubility of the product observed in the groundwater.

3.4 INVESTIGATION DERIVED WASTES (IDW)

Investigation derived wastes (IDW) were generated during the investigation and included purge water. Purge water was placed into the on-site oil/water separator system.

4.0 FINDINGS

The following describes the results of the annual groundwater monitoring at the Owens-Brockway Glass Container facility in Oakland, California. Comparisons are made between the data and appropriate regulatory standards and risk based screening levels where they are available. Groundwater sample results are presented in Table 3. Analytical laboratory reports are included in Appendix B. Sample locations and pertinent data are presented on Plates 3 and 4.

4.1 SUMMARY OF GROUNDWATER RESULTS

4.1.1 Fuel Oil Release Area (MW-2, MW-5, MW-7, MW-8, MW- 10, MW-19)

Petroleum hydrocarbons quantified as diesel/fuel oil, were detected in all of the water samples collected as summarized in Table 3. Diesel concentrations are shown and contoured on Plate 3. Detected TPHd concentrations in groundwater range from 1700 to 290,000 $\mu\text{g/l}$. The highest concentrations were detected in MW-7. The estimated outline of the product plume is illustrated on Plate 3. In general the overall size of the product plume is the same as has been observed over the last 18 years of monitoring.

Separate phase floating product was observed in MW-2, and MW-6 in the field and in MW-5 and MW-7 at the laboratory. After the initial sampling was completed CKG had the laboratory remove the separate phase product from the samples and re-run the analysis. This was done to evaluate to what extent the product is actually soluble in the groundwater. The following summarizes a comparison between the two results:

Sample	TPH results unmodified ($\mu\text{g/l}$)		TPH result with product removed first ($\mu\text{g/l}$)	
	TPHd	TPH _{mo}	TPHd	TPH _{mo}
MW-2	1,600,000	1,200,000	320,000	240,000
MW-5	34,000	26,000	28,000	27,000
MW-6	270,000	200,000	21,000	18,000
MW-7	290,000	150,000	81,000	18,000

Based on the above comparison it is clear that the concentrations of the product in groundwater in MW-2, MW-6 and MW-7 are an order of magnitude lower than would be indicated with the product present. In MW-5 there was effectively no difference. MW-5 was submitted for the modified analysis only because the laboratory thought that they had observed separate phase product in the sample. This observation was not made in the field.

4.1.2 Gasoline Release Area (MW-13, MW-15, MW- 16, MW17, MW-20)

Petroleum hydrocarbons quantified as gasoline, were detected in one of the water samples collected as summarized in Table 3. TPHg was detected in MW-17 at 1400 µg/l. This detection illustrates the very limited area where gasoline remains in the subsurface at the site. The extent of the gasoline plume is illustrated on Plate 4.

5.0 CONCLUSIONS AND RECOMMENDATIONS

On the basis of the annual monitoring the following conclusions and recommendations can be made:

5.1 CONCLUSIONS

The recent groundwater monitoring, as well as a review of historic data, shows that the petroleum hydrocarbon plumes at the site are stable and have attenuated substantially over time. The fuel oil release appears to extend only slightly off site.

5.2 RECOMMENDATIONS

CKG recommends that Owens-Brockway submit this report to the Alameda County Health Agency and respectfully request case closure. A full description of the rationale for closure is described in CKG's Data Compilation and Closure Report Underground Fuel Storage Tank Locations, Owens-Brockway Glass Container Facility, Oakland, California, November 4, 2003.

6.0 REFERENCES

California Regional Water Quality Control Board – San Francisco Bay region, Order No 99-045, 1999

CKG Environmental, Inc. 2004 Groundwater Monitoring Report, Owens-Brockway Glass Container Facility, Oakland, California April 29, 2004.

CKG Environmental, Inc. Summary of Remediation History and Groundwater Impact by Petroleum Hydrocarbons, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California. April 4, 2003.

CKG Environmental, Inc. Work Plan to Install One Monitoring Well and Assess the Distribution of Petroleum Hydrocarbons, Owens-Brockway Glass Container Facility, Oakland, California, April 22, 2003.

CKG Environmental, Inc. Data Compilation and Closure Report Underground Fuel Storage Tank Locations, Owens-Brockway Glass Container Facility, Oakland, California, November 4, 2003.

Exeltech, Soil and Groundwater Contamination Investigation for Owens-Illinois Glass Container Division, 3600 Alameda Avenue, Oakland, California, December 1986.

Exeltech, Soil and Groundwater Contamination Investigation for Owens-Illinois Glass Container Division, 3600 Alameda Avenue, Oakland, California, February 1987.

Kennedy/Jenks, Consultants. Groundwater investigation Report, Owens-Brockway Glass Containers, February 16, 1999.

Kennedy/Jenks, Consultants. Annual Groundwater Monitoring Report, Owens-Brockway Glass Containers, January 21, 2003.

7.0 LIMITATIONS

CKG Environmental, Inc. prepared this report in accordance with generally accepted standards of care, which exist in Northern California at this time. It should be recognized that definition and evaluation of geologic and environmental conditions is a difficult and an inexact science.

Conclusions and recommendations presented in this report are based on the results of the scope of work presented in our proposal dated November 15, 2002. This scope of work includes groundwater sampling at total of 10 wells, and quantitative analysis of groundwater samples conducted by McCampbell Analytical. Only work described herein was performed. As such CKG cannot render opinions on issues not resulting directly from the work performed.

Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present. More extensive studies, including additional subsurface investigations, may be performed to reduce uncertainties. If the client wishes to reduce the uncertainties of this investigation, CKG should be notified for additional consultation. No warranty, expressed or implied, is made.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify CKG of such intended use. Based on the intended use of the report, CKG may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release CKG from any liability resulting from the use of this report by any unauthorized party.

Table 1 Summary of Well Construction Details

Well Number	Date Installed	Top of Casing Elevation ^(a)	Top of Screen ^(b)	Screen Length	Well Depth ^(c)	Casing Diameter (inches)	Comments
MW-1	9/12/1986	16.02	8	21	29	2	
MW-2	12-Sep-86	17.11	10	20	30	2	
MW-3	12-Sep-86	15.46	10	20	39	2	Destroyed
MW-4	12-Sep-86	16.02	8.5	20	28.5	2	
MW-5	12-Sep-86	16.19	8.5	20	28.5	2	
MW-6	12-Sep-86	17.48	12.5	16	28.5	2	
MW-7	12-Sep-86	16.11	12.5	11	23.5	2	
MW-8	12-Sep-86	16.57	15	13.5	28.5	2	
MW-9	12-Sep-86	7.33 ^(d)	5	10	20	2	
MW-10	12-Sep-86	15.96	10	15	25	2	
MW-11	12-Sep-86	13.99	10	20	30	2	
MW-12	12-Sep-86	13.83	11	15	26	2	
MW-13	12-Sep-86	13.98	9.5	15	24.5	2	
MW-14	12-Sep-86	14.78	10	15	25	2	Destroyed
MW-15	12-Sep-86	15.16	9.5	20	29.5	2	
MW-16	12-Sep-86	13.48	10	14.5	24.5	2	
MW-17	12-Sep-86	14.17	9.5	15	24.5	2	
MW-18	12-Sep-86	14.89	9	15	24	2	Destroyed
MW-19	01-May-03	NA	10	15	25	2	
MW-20	01-Dec-00	12.74	6.9	15	21.9	2	
R-1	1987	NM ^(e)	NA ^(f)	NA	24	36	Destroyed
R-2	1989	NM	NA	NA	NA	12	Destroyed

(a) Top of casing elevation (TOCE) except where noted; measured in feet above US Coast and Geodetic Datum (mean sea level). Elevations measured by Exceltech in 1986, and by PLS Surveys for MW-20 in 2000.

(b) Depth to top of screened interval (feet below top of casing)

(c) Depth to bottom of screened interval (feet below top of casing)

(d) Well casing was not measured for this well; well is located beneath forklift ramp and this measurement is the ground surface elevation in MSL.

(e) NM = Not measured

(f) NA = Not available

Table 2 Groundwater Depths and Elevation June 30, 2005

Well Number	Date Installed	Top of Casing Elevation ^(a)	Depth to Water	Groundwater Elevation
MW-1	9/12/1986	16.02	NM	
MW-2	12-Sep-86	17.11	12.23	4.88
MW-4	12-Sep-86	16.02	NM	
MW-5	12-Sep-86	16.19	11.65	4.54
MW-6	12-Sep-86	17.48	13.74	3.74
MW-7	12-Sep-86	16.11	12.45	3.66
MW-8	12-Sep-86	16.57	9.52	7.05
MW-9	12-Sep-86	7.33 ^(d)	NM	
MW-10	12-Sep-86	15.96	9.58	6.38
MW-11	12-Sep-86	13.99	NM	
MW-12	12-Sep-86	13.83	NM	
MW-13	12-Sep-86	13.98	10.41	3.57
MW-15	12-Sep-86	15.16	11.28	3.88
MW-16	12-Sep-86	13.48	7.98	5.5
MW-17	12-Sep-86	14.17	9.2	4.97
MW-19	01-May-03	NA	11.68	
MW-20	01-Dec-00	12.74	9.15	3.59

(a) Top of casing elevation (TOCE) except where noted; measured in feet above US Coast and Geodetic Datum (mean sea level). Elevations measured by Exceltech in 1986, and by PLS Surveys for MW-20 in 2000.

(d) Well casing was not measured for this well; well is located beneath forklift ramp and this measurement is the ground surface elevation in MSL.

(e) NM = Not measured

(f) NA = Not available

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

MW-1	Date	B	T	E	X	TPHd	TPHg	TOG
	9/23/1986	<10	<10	NA	<10	<.01	<.01	25
	4/9/1987	<10	<10	NA	<10	<.01	NA	NA
	9/16/1987	not accessible						
	12/1/1987	not accessible						
	3/7/1988	not accessible						
	6/8/1988	not accessible						
	9/14/1988	not accessible						
	9/16/1997	<.5	<.5	<.5	<.5	0.19 ^(a)	<50	NA
	11/2/1998	<.5	<.5	<.5	<.5	0.16 ^(a)	<50	NA
	12/11/2001	not accessible						
	12/6/2002	<.5	<.5	<.5	<.5	0.069 ^(a)	<50	NA
	3/15/2004	not accessible						
	6/30/2005	not accessible						
MW-2	4/9/1987	floating product						
	9/16/1987	floating product						
	12/1/1987	floating product						
	3/7/1988	floating product						
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	floating product						
	11/2/1998	floating product						
	12/11/2001	floating product						
	12/6/2002	floating product						
	3/15/2004	floating product						
	6/30/2005	<.5	<.5	<.5	<.5		2900	
MW-3	9/23/1986	<10	<10	NA	<10	NA	<10	18
	4/9/1987	BDL	BDL	NA	BDL	NA	370	NA
	9/16/1987	floating product						
	12/1/1987	floating product						
	3/7/1988	NA	NA	NA	NA	190	NA	NA
	6/8/1988	NA	NA	NA	NA	16	NA	NA
	9/14/1988	floating product						
	6/30/2005	Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPHd	TPHg	TOG
MW-4	9/23/1986	<5	<5	NA	<5	NA	20	7.2
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	0.66	1.3	NA
	12/1/1987	BDL	BDL	NA	8.9	0.1	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	0.1	BDL	NA
	6/30/2005	Destroyed						
MW-5	10/3/1986	<5	<5	NA	6.6	NA	1400	24
	4/9/1987	<5	<5	NA	<5	NA	54	NA
	9/16/1987	NA	NA	NA	NA	96	NA	NA
	12/1/1987	NA	NA	NA	NA	2	NA	NA
	3/9/1988	NA	NA	NA	NA	<.05	NA	NA
	6/8/1988	NA	NA	NA	NA	12	NA	NA
	9/14/1988	NA	NA	NA	NA	6.3	NA	NA
	9/16/1997	<.5	<.5	<.5	<.5	11.6 ^(a)	<50	NA
	11/2/1998	floating product						
	12/6/2000	<.5	<.5	<.5	<.5	11.7 ^(a)	1000	NA
	12/12/2001	<.5	<.5	<.5	<.5	10 ^(a)	360 ^(b)	NA
	12/6/2002	<.5	<.5	<.5	<.5	5.2 ^(a)	150 ^(b)	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	46 ^(a)	180 ^(b)	NA
6/30/2005	<.5	<.5	<.5	<.5		100		
MW-6	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	400	NA	NA
	12/1/1987	NA	NA	NA	NA	30	NA	NA
	3/7/1988	NA	NA	NA	NA	9.8	NA	NA
	6/8/1988	NA	NA	NA	NA	63	NA	NA
	9/14/1988	NA	NA	NA	NA	140	NA	NA
	9/16/1997	floating product						
	11/2/1998	floating product						
	12/11/2001	floating product						
	12/6/2002	floating product						
	3/15/2004	floating product						
	6/30/2005	<.5	<.5	<.5	<.5		300	

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Thybenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPHd	TPHg	TOG
MW-7	10/3/1986	<5	<5	NA	<5	NA	260	8
	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	790	NA	NA
	12/1/1987	NA	NA	NA	NA	5.3	NA	NA
	3/9/1988	NA	NA	NA	NA	<.05	NA	NA
	6/9/1988	NA	NA	NA	NA	12	NA	NA
	9/14/1988	NA	NA	NA	NA	67	NA	NA
	9/16/1997	<.5	<.5	<.5	<.5	37 ^(a)	850	NA
	11/2/1998	floating product						
	12/6/2000	<.5	<.5	<.5	1.90	3.58 ^(a)	540	NA
	12/12/2001	<.1	<.1	<.1	<.1	12.6 ^(a)	1200 ^(b)	NA
	12/6/2002	<.5	<.5	<.5	<.5	27.6 ^(a)	480 ^(b)	NA
	3/15/2004	<.05	<.05	0.57	1.10	170 ^(a)	890 ^(b)	NA
	6/30/2005	<.5	<.5	3.1	<.5		3000	
	MW-8	10/23/1986	<.2	<.2	NA	<.1	NA	1300
4/9/1987		<.5	<.2	NA	<.1	NA	73	NA
9/16/1987		floating product						
12/1/1987		NA	NA	NA	NA	0.63	NA	NA
3/9/1988		NA	NA	NA	NA	2.6	NA	NA
6/9/1988		NA	NA	NA	NA	1.7	NA	NA
9/14/1988		NA	NA	NA	NA	0.15	NA	NA
8/12/1997		floating product						
9/16/1997		<.5	<.5	<.5	<.5	0.29 ^(a)	<50	NA
11/2/1998		<.5	<.5	<.5	<.5	1.3 ^(a)	<50	NA
12/6/2000		<.5	<.5	<.5	<.5	0.16 ^(a)	<50	NA
12/12/2001		<.5	<.5	<.5	<.5	<.05	<50	NA
12/5/2002		<.5	<.5	<.5	<.5	0.17 ^(a)	55 ^(b)	NA
3/15/2004		<.5	<.5	<.5	<.5	3 ^(a)	320 ^(b)	NA
6/30/2005		<.5	<.5	<.5	<.5		1100	

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPH _d	TPH _g	TOG
MW-9	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	1.3	NA	NA
	12/1/1987	NA	NA	NA	NA	18	NA	NA
	3/9/1988	NA	NA	NA	NA	47	NA	NA
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	<13	<13	<13	18.00	28 ^(a)	6000	NA
	11/2/1998	floating product						
	12/6/2000	<5	<5	<5	<5	102 ^(a)	790	NA
	12/12/2001	innaccessible						
	12/5/2002	innaccessible						
	3/15/2004	innaccessible						
	6/30/2005	innaccessible						
MW-10	10/23/1986	<.2	<.2	NA	<.2	NA	380	7.2
	4/9/1987	<.2	<.2	NA	<.2	NA	300	NA
	9/16/1987	NA	NA	NA	NA	3.8	NA	NA
	12/1/1987	NA	NA	NA	NA	0.59	NA	NA
	3/8/1988	NA	NA	NA	NA	<.5	NA	NA
	6/8/1988	NA	NA	NA	NA	3.8	NA	NA
	9/14/1988	NA	NA	NA	NA	0.57	NA	NA
	9/16/1997	<.5	<.5	<.5	<.5	1.3 ^(a)	<50	NA
	11/2/1998	<.5	<.5	<.5	<.5	1.4 ^(a)	<50	NA
	12/6/2000	<.5	<.5	<.5	0.70	0.73 ^(a)	150	NA
	12/11/2001	<.5	<.5	<.5	<.5	0.63 ^(a)	210 ^(b)	NA
	12/5/2002	<.5	<.5	<.5	<.5	0.84 ^(a)	210 ^(b)	NA
	3/15/2004	<.5	<.5	<.5	0.8	2.5 ^(a)	160 ^(b)	NA
6/30/2005	<.5	<.5	<.5	<.5		140		
MW-11	9/23/1986	<0.4	<0.4	NA	1.4	NA	<8	1.2
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	12/1/1987	0.8	BDL	NA	10	NA	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	100	BDL	NA
	6/30/2005	Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Thylbenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPHd	TPHg	TOG
MW-12	9/23/1986	0.49	1	NA	1.3	NA	100	2.5
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	12/1/1987	BDL	BDL	NA	13	NA	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	0.12	BDL	NA
	6/30/2005	Destroyed						
MW-13	12/24/1986	<.2	<.9	NA	<.9	NA	<10	57
	4/9/1987	<.5	<.5	NA	<.5	NA	<10	NA
	9/16/1987	<.5	<.5	NA	<.5	NA	<10	NA
	12/1/1987	1.6	<.5	NA	12	NA	<10	NA
	3/8/1988	<.5	<.5	NA	<.5	<.5	7.7	NA
	6/8/1988	<.5	<.5	NA	<.5	<.5	<10	NA
	9/14/1988	<.5	<.5	NA	<.5	0.13	<10	NA
	9/16/1997	<.5	<.5	<.5	<.5	0.12 ^(a)	<50	NA
	11/2/1998	<.5	<.5	<.5	<.5	0.12 ^(a)	<50	NA
	12/6/2000	<.5	<.5	<.5	<.5	0.2 ^(a)	<50	NA
	12/11/2001	<.5	<.5	<.5	<.5	0.091 ^(a)	<50	NA
	12/5/2002	<.5	<.5	<.5	<.5	0.19 ^(a)	<50	NA
	3/15/2004	<.5	<.5	<.5	<.5	<0.05	<50	NA
	6/30/2005	<1.0	<1.0	<1.0	<1.0	<50	<50	
MW-14	9/23/1986	<0.4	<0.2	NA	<0.2	NA	<8	3.2
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	0.056	1.7	NA
	12/1/1987	1.2	4	NA	10	0.066	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	20	NA
	6/8/1988	inaccessible						
	9/14/1988	inaccessible						
	6/30/2005	Destroyed						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPHd	TPHg	TOG
MW-15	12/24/1986	<.2	<.9	NA	9.20	NA	120	1.6
	4/9/1987	<.5	<.5	NA	<.5	NA	<.5	NA
	9/16/1987	<.5	<.5	NA	<.5	<.1	8.4	NA
	12/1/1987	3.30	0.84	NA	14	NA	<.5	NA
	3/8/1988	0.80	<.5	NA	<.5	<.1	90	NA
	6/9/1988	<.5	<.5	NA	<.5	<.1	53	NA
	9/14/1988	NA	NA	NA	NA	0.1	NA	NA
	9/16/1997	<.5	<.5	<.5	<.5	1.27 ^(a)	<50	NA
	11/2/1998	<.5	<.5	<.5	<.5	0.34 ^(a)	<50	NA
	12/6/2000	<.5	<.5	<.5	<.5	0.4 ^(a)	<50	NA
	12/11/2001	<.5	<.5	<.5	<.5	0.29 ^(a)	<50	NA
	12/5/2002	<.5	<.5	<.5	<.5	0.44 ^(a)	<50	NA
	3/15/2004	<.5	<.5	<.5	<.5	<0.05	<50	NA
6/30/2005	<.5	<.5	<.5	<.5	<.5	<50	NA	
MW-16	12/24/1986	<.2	<.9	NA	<.9	NA	<10	1.2
	4/9/1987	<.5	<.5	NA	<.5	NA	<.5	NA
	9/16/1987	<.5	<.5	NA	<.5	0.064	<.5	NA
	12/1/1987	1.00	0.37	NA	9.1	0.15	120	NA
	3/7/1988	0.50	<.5	NA	<.5	<.1	10	NA
	6/8/1988	<.5	<.5	NA	<.5	<.1	<0.5	NA
	9/14/1988	<.5	<.5	NA	<.5	0.19	<0.5	NA
	9/16/1997	floating product						
	12/6/2000	<.5	<.5	<.5	<.5	0.097 ^(a)	<50	NA
	12/11/2001	<.5	<.5	<.5	<.5	<0.05	<50	NA
	12/5/2002	<.5	<.5	<.5	<.5	0.051 ^(a)	<50	NA
	3/15/2004	<.5	<.5	<.5	<.5	63	<50	NA
	6/30/2005	<.5	<.5	<.5	<.5	<.5	<50	NA

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram did not match diesel pattern

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern

**Table 3 Summary of Groundwater Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA**

	Date	B	T	E	X	TPH _d	TPH _g	TOG
MW-17	12/24/1986	5	1.20	NA	14.00	NA	240	2.4
	4/9/1987	<5	<5	NA	<5	NA	<.5	NA
	9/16/1987	<5	<5	NA	0.55	0.68	44	NA
	12/1/1987	7.80	2.40	NA	28	1.3	540	NA
	3/8/1988	83.00	<5	NA	46	3.8	4300	NA
	6/8/1988	Inaccessible						
	9/14/1988	<.5	<.5	<.5	<.5	64	54000	NA
	9/16/1997	<.5	<.5	<.5	<.5	119.6 ^(a)	1900	NA
	11/2/1998	<.5	<.5	<.5	0.60	16 ^(a)	<50	NA
	12/6/2000	<.5	<.5	<.5	<.5	47.8 ^(a)	340	NA
	12/11/2001	<10	<10	<10	<10	101 ^(a)	5300 ^(b)	NA
	12/5/2002	<.5	<.5	<.5	<.5	71 ^(a)	700 ^(b)	NA
	3/15/2004	2.1	0.71	<.5	1.5	660 ^(a)	1400 ^(b)	NA
	6/30/2005	<.5	2.4	<.5	1.1		1700	
MW-18	9/23/1986	<0.3	<0.3	NA	0.99	NA	<20	1.6
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	0.48	BDL	NA
	12/1/1987	BDL	BDL	NA	6.6	0.18	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	0.19	BDL	NA
6/30/2005	Destroyed							
MW-19	6/23/2004	<0.5	<0.5	<0.5	<0.5	1.1	480	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	1.1 ^(a)	330 ^(b)	NA
	6/30/2005	<0.5	<0.5	1.5	4.5		840	
MW-20	12/11/2000	<0.5	<0.5	<0.5	<0.5	0.11 ^(a)	<50	NA
	4/6/2001	<0.5	<0.5	<0.5	<0.5	0.057 ^(a)	<50	NA
	7/6/2001	<0.5	<0.5	<0.5	<0.5	0.12 ^(a)	<50	NA
	9/19/2001	<0.5	<0.5	<0.5	<0.5	0.16 ^(a)	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	0.082 ^(a)	86 ^(b)	NA
	2/6/2002	<0.5	<0.5	<0.5	<0.5	0.085 ^(a)	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<0.5	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5		<50	

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l

B - Benzene in ug/l

X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l

T - Toluene in ug/l

E - Thylbenzene in ug/l

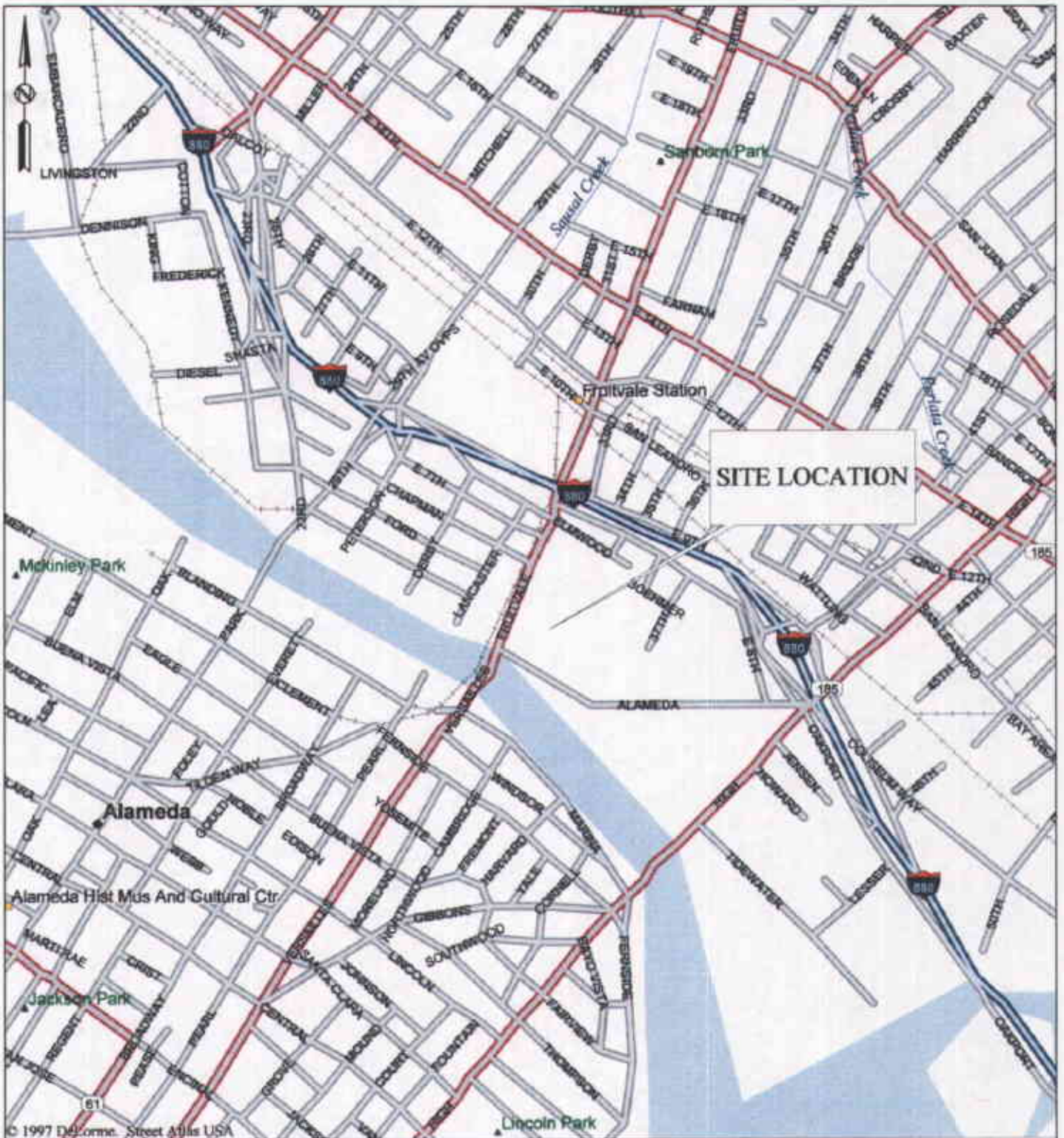
TOG - Total Oil and Grease in ug/l

BDL - Below detection limit

NA - Not analyzed

(a) - Quantified as diesel but chromatogram NA - Not analyzed

(b) - Quantified as gasoline but chromatogram did not match gasoline pattern



© 1997 DataForm. Street Atlas USA

Mag 15.00
 Mon Jul 28 16:01 2003
 Scale 1:15,625 (at center)
 1000 Feet

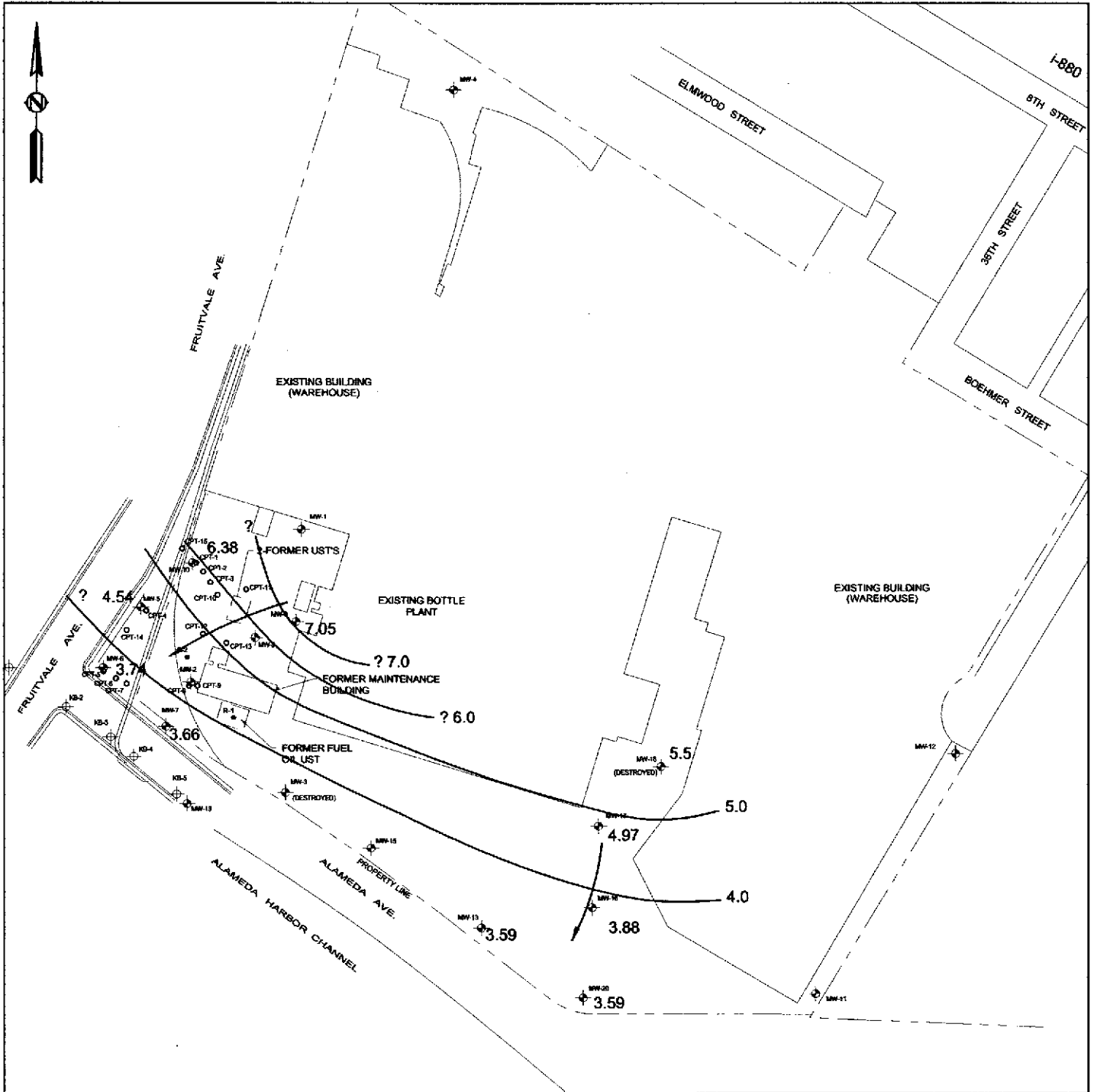
CKG Environmental Inc.

PROJECT NO. 123-04 DATE JUN 2005



SITE LOCATION MAP
 Owens Brockway
 Glass Container, Inc.
 Oakland, California

PLATE
 1



EXPLANATION

- MW-7 Groundwater Monitoring Well
- Estimated groundwater/low direction
- Product Recovery Well



CKG Environmental Inc.

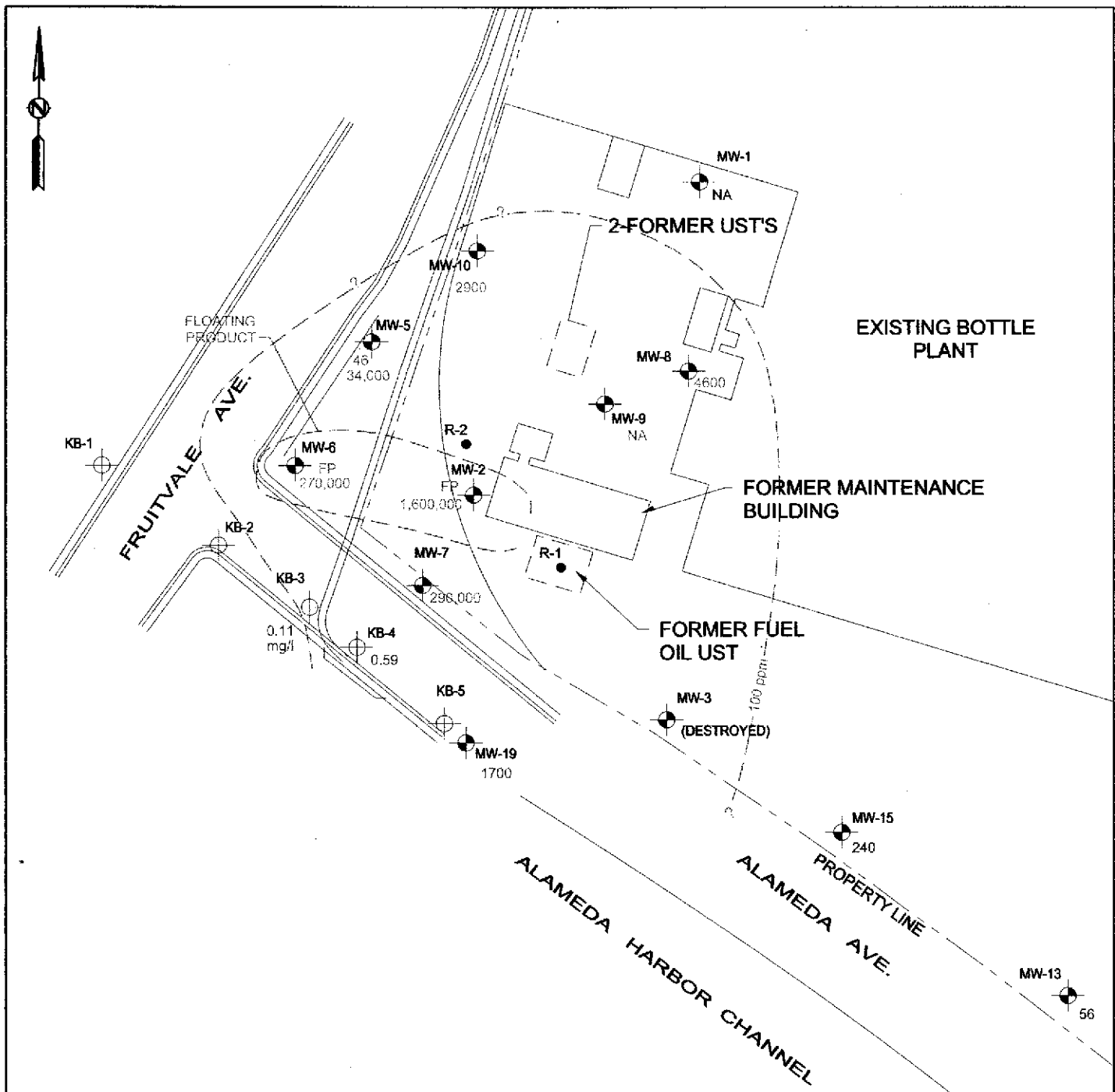
PROJECT NO. 123-04 DATE JUN 2005



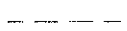


**GROUNDWATER ELEVATION
CONTOUR MAP**
Owens Brockway
Glass Container, Inc.
Oakland, California

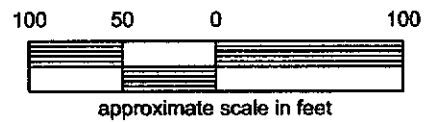
PLATE

2



EXPLANATION

-  Fuel Oil
-  Existing Monitoring Wells June 2005
TPHd result (µg/l)
-  Floating Product



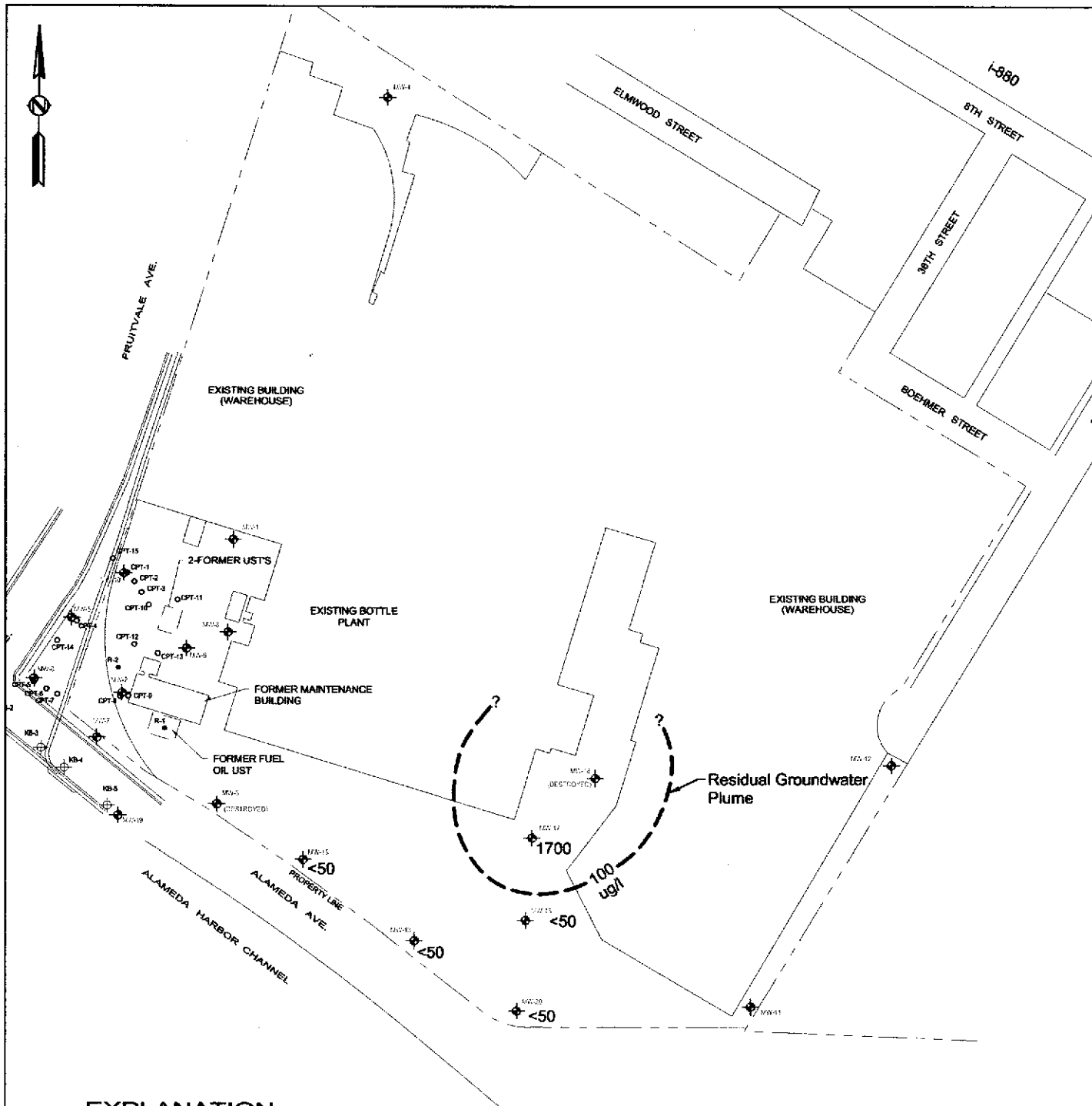
CKG Environmental Inc.



**FUEL OIL
DISTRIBUTION MAP**
Owens Brockway
Glass Container, Inc.
Oakland, California

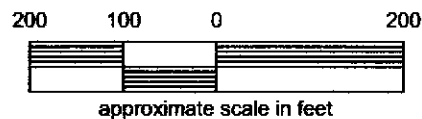
PLATE

3



EXPLANATION

- MW-7 <50 Groundwater Monitoring Well TPHg (ug/l)
- Product Recovery Well



CKG Environmental Inc.

PROJECT NO. 123-04 DATE JUN 2005



GASOLINE DISTRIBUTION MAP PLATE

Owens Brockway
Glass Container, Inc.
Oakland, California

WELLHEAD INSPECTION CHECKLIST

Date 6-30-05 Client CKG

Site Address 5600 Alameda Ave Oakland

Job Number 050630-DW-1 Technician DW

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1								X
MW-2		Bailed mud					X	
MW-5								
MW-6								
MW-7							X	
MW-8		X					X	
MW-10		X					X	
MW-13							X	
MW-15		X					X	
MW-16							X	
MW-17							X	
MW-19								
MW-20								

NOTES: MW-17 - No lid. Apron broken up. PVC broken. Unable to seal properly. gravel + rocks getting in well.

MW-16 - Lid broken MW-13 - PVC broken, jagged. Cap broken.

MW-10, MW-15 - cap broken MW-1 - Buried under glass pile

MW-7 - no lid MW-8 no lid. Cap broken

MW-2 cap broken

WELL GAUGING DATA

Project # 050630-DW-1 Date 6-30-05 Client CRL

Site 3600 Alameda Ave Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	2	Buried	under	large	glass	pile	—	—
MW-2	2	sheen	No	SPH	detected	w/IR	* 12.23	26.80
MW-5	2					* 11.65	22.65	
MW-6	2	sheen	No	SPH	detected	w/IR	* 13.74	25.85
MW-7	2					* 12.45	22.60	
MW-8	2					9.52	18.18	
MW-10	2					9.58	19.60	
MW-13	2					10.41	20.33	
MW-15	2					11.28	22.00	
MW-16	2					* 7.98	20.35	
MW-17	2					9.20	15.90	
MW-19	2					11.68	25.08	
MW-20	2					9.15	21.85	↓
* removed socks from well to gauge.								

WELL MONITORING DATA SHEET

Project #: <u>050630-0W-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW):
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> <u>Grade</u>	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer X Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	--

	(Gals.) X	<u>3</u>	=		Gals.
1 Case Volume	Specified Volumes	Calculated Volume			

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>Well buried under large glass pile. No samples</u>

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Date: <u>6-30-05</u>	Sampling Time: _____
Sample I.D.: <u>MW-1</u>	Depth to Water: _____
Laboratory: Kiff CalScience X Other <u>McCambe II</u>	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> Oxygenates (5) Other:	
EB I.D. (if applicable): @ _____ Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: 050630-0W-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-2	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 26.80	Depth to Water (DTW): 12.23
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (EVO) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

$2.3 \text{ (Gals.)} \times 3 = 6.9 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1440						Heavy sheen. Blotchy patches of product.
1444						Bailer coated w/ product. No
1448						parameters taken. Black

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 6.9
Sampling Date: 6-30-05 Sampling Time: 1453	Depth to Water:
Sample I.D.: mw-1 mw-2	Laboratory: Kiff CalScience <input checked="" type="checkbox"/> Other McCambe II
Analyzed for: <input checked="" type="checkbox"/> TPH-D <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D	Oxygenates (5) Other:
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other:
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>050630-PW-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>22.65</u>	Depth to Water (DTW): <u>11.65</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

$\frac{1.8 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{5.4 \text{ Gals.}}{\text{Calculated Volume}}$	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1130					1.8	Heavy sheen, Bailer coated in product
1134					3.6	No parameters taken. Blotchy spots of product at top of each bailer
1137					5.4	

Did well dewater? Yes <input checked="" type="checkbox"/> No	Gallons actually evacuated: <u>5.4</u>
Sampling Date: <u>6-30-05</u> Sampling Time: <u>1142</u>	Depth to Water:
Sample I.D.: <u>MW-5</u>	Laboratory: Kiff CalScience <input checked="" type="checkbox"/> Other <u>McCambe II</u>
Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D	Oxygenates (5) Other:
EB I.D. (if applicable): @ _____	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other:
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: 050630-DW-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-6	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth (TD): 25.85	Depth to Water (DTW): 13.74
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (EVO) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$\frac{1.9 \text{ (Gals.)} \times 3 \text{ Specified Volumes}}{1 \text{ Case Volume}} = 5.7 \text{ Gals. Calculated Volume}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1059	No parameters taken due to product.				2	
1103	Bailer coated with product; thin layer of				4	
1106	slotchy product on top of each bailer full				6	

Did well dewater? Yes <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Gallons actually evacuated: 6	
Sampling Date: 6-30-05	Sampling Time: 1111	Depth to Water:
Sample I.D.: mw-6	Laboratory: Kiff CalScience	<input checked="" type="checkbox"/> Other McCambe II
Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D	Oxygenates (5)	Other:
EB I.D. (if applicable): @ _____	Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5)	Other:
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: <u>050630-DW-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>mw-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>22.10</u>	Depth to Water (DTW): <u>12.45</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Waters	Sampling Method: Bailer
<input checked="" type="checkbox"/> Disposable Bailer	<input type="checkbox"/> Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer
<input type="checkbox"/> Positive Air Displacement	<input type="checkbox"/> Extraction Pump	<input type="checkbox"/> Extraction Port
<input type="checkbox"/> Electric Submersible	Other _____	<input type="checkbox"/> Dedicated Tubing
Other: _____		

<u>1.5</u> (Gals.) X	<u>3</u>	= <u>4.5</u> Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (<u>Ⓢ</u> or °C)	pH	Cond. (mS or <u>Ⓢ</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1035	70.4	7.1	1022	>1000	1.5	sheen/grey
1038	68.6	7.1	1137	>1000	3.0	" "
1040	67.9	7.1	1161	>1000	4.5	" "

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 6-30-05 Sampling Time: 1045 Depth to Water:

Sample I.D.: mw-7 Laboratory: Kiff CalScience Other McCambe II

Analyzed for: TPH-D BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL MONITORING DATA SHEET

Project #: <u>050630-PW-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>mw-8</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>18.18</u>	Depth to Water (DTW): <u>9.52</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(VVD)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Water: <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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<u>1.4</u> (Gals.) X	<u>3</u> Specified Volumes =	<u>4.2</u> Gals. Calculated Volume
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Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1412	67.8	7.3	3304	>1000	1.4	gray
1416	66.0	7.3	3392	>1000	2.8	"
1420	65.1	7.3	3400	>1000	4.2	"

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 6-30-05 Sampling Time: 1425 Depth to Water: _____

Sample I.D.: mw-8 Laboratory: Kiff CalScience Other McCambe II

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 050650-DW-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-10	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 19.60	Depth to Water (DTW): 9.58
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVD) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Watertra Peristaltic Extraction Pump Other _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$$1.6 \text{ (Gals.)} \times 3 = 4.8 \text{ Gals.}$$
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1205	67.6	7.3	1317	>1000	1.6	gray
1208	67.0	7.2	1364	>1000	3.2	"
1210	66.9	7.2	1377	>1000	4.8	"

Did well dewater? Yes No Gallons actually evacuated: **4.8**

Sampling Date: **6-30-05** Sampling Time: **1215** Depth to Water:

Sample I.D.: **mw-10** Laboratory: Kiff CalScience Other **McCombe II**

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: 050630-0W-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-13	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 20.33	Depth to Water (DTW): 10.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVD) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$1.6 \text{ (Gals.)} \times 3 = 4.8 \text{ Gals.}$	1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius ² * 0.163															

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1320	69.3	7.6	880	>1000	1.6	Brown
1323	69.2	7.7	889	>1000	3.2	"
1325	68.5	7.8	892	>1000	4.8	"

Did well dewater? Yes No Gallons actually evacuated: **4.8**

Sampling Date: **6-30-05** Sampling Time: **1330** Depth to Water: _____

Sample I.D.: **mw-13** Laboratory: Kiff CalScience Other **McCambe II**

Analyzed for: TPH-2 BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 050630-0W-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-15	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 29.00	Depth to Water (DTW): 11.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVD) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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2.8 (Gals.) X **3** = **8.4** Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1341	69.9	7.6	1863	>1000	2.8	Brown
1345	69.8	7.5	1874	>1000	5.6	"
1350	69.3	7.5	1801	>1000	8.4	"

Did well dewater? Yes No Gallons actually evacuated: **8.4**
 Sampling Date: **6-30-05** Sampling Time: **1355** Depth to Water:

Sample I.D.: **mw-15** Laboratory: Kiff CalScience Other **McCambe II**

Analyzed for: TPH-2 BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>050630-04-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>mw-16</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>20.35</u>	Depth to Water (DTW): <u>7.98</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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<u>2</u> (Gals.) X <u>3</u> = <u>6</u> Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1228	70.2	7.9	852	>1000	2	Brown
1232	70.0	7.8	778	>1000	4	"
1235	70.0	7.7	753	>1000	6	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>6</u>
Sampling Date: <u>6-30-05</u> Sampling Time: <u>1240</u>	Depth to Water:
Sample I.D.: <u>mw-16</u>	Laboratory: Kiff CalScience <input checked="" type="checkbox"/> Other <u>McCambe II</u>
Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D	Oxygenates (5) Other:
EB I.D. (if applicable): @ _____	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other:
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>050630-04-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>MW-17</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>15.90</u>	Depth to Water (DTW): <u>9.20</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>EVO</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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$1.1 \text{ (Gals.)} \times 3 = 3.3 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1255	69.7	7.3	861	>1000	1.1	gray/sheen
1257	68.9	7.2	897	>1000	2.2	" "
1300	68.8	7.2	902	>1000	3.3	" "

Did well dewater? Yes No Gallons actually evacuated: 3.3

Sampling Date: 6-30-05 Sampling Time: 1305 Depth to Water: _____

Sample I.D.: MW-17 Laboratory: Kiff CalScience Other McCabe II

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>050630-0W-1</u>	Client: <u>CKG</u>
Sampler: <u>DW</u>	Date: <u>6-30-05</u>
Well I.D.: <u>MW-19</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): <u>25.08</u>	Depth to Water (DTW): <u>11.68</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>EVO</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer	Waterra	Sampling Method: Bailer
<input checked="" type="checkbox"/> Disposable Bailer	Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

2.1	(Gals.) X	3	=	6.3	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1005	68.7	7.3	727	439	2.1	
1008	67.6	7.2	750	329	4.2	
1012	67.3	7.1	734	671	6.3	

Did well dewater? Yes No Gallons actually evacuated: 6.3

Sampling Date: 6-30-05 Sampling Time: 1017 Depth to Water:

Sample I.D.: MW-19 Laboratory: Kiff CalScience Other McCanbe II

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 050630-PW-1	Client: CKG
Sampler: DW	Date: 6-30-05
Well I.D.: mw-20	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 21.85	Depth to Water (DTW): 9.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (EVO) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

2 (Gals.) X 3 = 6 Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
0938	70.8	7.5	1000	418	2	Brown
0942	69.6	7.5	1620	792	4	-
0945	68.7	7.5	1087	>1000	6	-

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 6
Sampling Date: 6-30-05 Sampling Time: 0950 Depth to Water:	
Sample I.D.: mw-20 Laboratory: Kiff CalScience <input checked="" type="checkbox"/> Other McCambe II	
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Oxygenates (5) Other:	
EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV	

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB McCampbell DHS # _____
ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
 EPA RWQCB REGION _____
 LIA
 OTHER

CHAIN OF CUSTODY
BTS # 050630-PW-1
CLIENT CKG Environmental
SITE Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATERIAL CONTAINERS		TPH - D (3015)	Motor Oil	TPH-G	BTEX	EPA 8270	MTBE	TDS	CONDUCTIVITY	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			8" SOIL W/H ₂ O	TOTAL												
MW-2	6-30	1953	W	5	X	X	X	X		X						
MW-5		1142			X	X	X	X		X						
MW-6		1111			X	X	X	X		X						
MW-7		1045			X	X	X	X		X						
MW-8		1425			X	X	X	X		X						
MW-10		1215			X	X	X	X		X						
MW-13		1330			X	X	X	X		X						
MW-15		1355			X	X	X	X		X						
MW-16		1240			X	X	X	X		X						
MW-17		1305			X	X	X	X		X						

SPECIAL INSTRUCTIONS
Invoice and Report to : CKG Environmental
808 Zinfandel Lane, St Helena, CA 94574
Attn: Christina Kennedy

Dissolved product in samples MW-2 and MW-5

SAMPLING COMPLETED DATE 6-30-05 TIME 1515 SAMPLING PERFORMED BY Dave Walter RESULTS NEEDED NO LATER THAN Per Client

RELEASED BY David G. Slater DATE 6-30-05 TIME 1645 RECEIVED BY Christina Kennedy DATE 6/30/05 TIME 1645

RELEASED BY [Signature] DATE 7/1/05 TIME 1407 RECEIVED BY [Signature] DATE 7/1/05 TIME 1407

RELEASED BY _____ DATE _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____

BLAINE

TECH SERVICES, INC.

1880 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0553

CONDUCT ANALYSIS TO DETECT

LAB

McC Campbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION _____

CHAIN OF CUSTODY	BTS #
CLIENT	CKG Environmental
SITE	Owens Brockway Glass Plant
	3600 Alameda Avenue
	Oakland, CA

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	CONTAINERS TOTAL	C	TPH - D (8015)	Motor Oil	TPH-G	BTEX	EPA 8270	MTBE	TDS	CONDUCTIVITY	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-19	6-30	1017	W	5		X	X	X	X		X						
MW-20	6-30	0950	W	5		X	X	X	X		X						

SPECIAL INSTRUCTIONS

Invoice and Report to : CKG Environmental
 808 Zimfindel Lane, St Helena, CA 94574
 Attn: Christina Kennedy

Disolved product in samples MW-2 and MW-6

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED	
	6-30-05	1515	Dave Walter	NO LATER THAN Per Client	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
David C. Slatt	6-30-05	1645	Christina Kennedy	6/30/05	1645
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Signature SAMPLE CUSTODIAN	7/1/05	1407	Signature	7/1/05	1407
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		



McC Campbell Analytical, Inc.

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Website: www.mcccampbell.com E-mail: main@mcccampbell.com

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owen Brockway Glass Plant	Date Sampled: 06/30/05
		Date Received: 07/01/05
	Client Contact: Chris Kennedy	Date Reported: 07/12/05
	Client P.O.:	Date Completed: 07/12/05

WorkOrder: 0507024

July 12, 2005

Dear Chris:

Enclosed are:

- 1). the results of 12 analyzed samples from your **Owen Brockway Glass Plant project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owen Brockway Glass Plant	Date Sampled: 06/30/05
		Date Received: 07/01/05
	Client Contact: Chris Kennedy	Date Reported: 07/12/05
	Client P.O.:	Date Completed: 07/15/05

Work Order: 0507024

July 15, 2005

CASE NARRATIVE

RE: TPH(d,mo) results excluding sheen/product phase for MW-2, MW-5, MW-6, MW-7, MW-17

At the client's request, the sheen/product phase of the above mentioned samples was removed using a manual pipet prior to extraction. Complete removal of all sheen/product from the samples cannot be assumed.



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CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owen Brockway Glass Plant	Date Sampled: 06/30/05
	Client Contact: Chris Kennedy	Date Received: 07/01/05
	Client P.O.:	Date Extracted: 07/07/05-07/12/05
		Date Analyzed: 07/07/05-07/12/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0507024

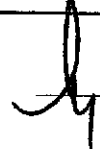
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	2900,g,m,h	ND<10	ND<1.0	ND<1.0	4.3	1.7	2	92
002A	MW-5	W	100,g,h	ND	ND	ND	ND	ND	1	95
003A	MW-6	W	300,g,h	ND	ND	ND	ND	ND	1	94
004A	MW-7	W	3000,g,h	ND	ND	ND	3.1	ND	1	100
005A	MW-8	W	1100,g,m	ND	ND	ND	ND	3.6	1	98
006A	MW-10	W	140,g	ND	ND	ND	ND	ND	1	96
007A	MW-13	W	ND	ND	ND	ND	ND	ND	1	103
008A	MW-15	W	ND	ND	ND	ND	ND	ND	1	102
009A	MW-16	W	ND	ND	ND	ND	ND	ND	1	103
010A	MW-17	W	1700,g,m,h	ND<10	ND	2.4	ND	1.1	1	97
011A	MW-19	W	840,g,m	ND	ND	ND	1.5	4.5	1	98
012A	MW-20	W	ND	ND	ND	ND	ND	ND	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

 Angela Rydelius, Lab Manager



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KKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owen Brockway Glass Plant	Date Sampled: 06/30/05
	Client Contact: Chris Kennedy	Date Received: 07/01/05
	Client P.O.:	Date Analyzed: 07/13/05-07/14/05
		Date Extracted: 07/12/05

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3510C

Analytical methods: SW8015C

Work Order: 0507024

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0507024-001C	MW-2 (w/o sheen)	W	320,000,a,g,p	240,000	100	--#
0507024-002C	MW-5 (w/o sheen)	W	28,000,b,g,p	27,000	20	104
0507024-003C	MW-6 (w/o sheen)	W	21,000,b,g,p	18,000	10	103
0507024-004C	MW-7 (w/o sheen)	W	81,000,a,g,p	52,000	50	113
0507024-010C	MW-17 (w/o sheen)	W	36,000,a,g,p	18,000	10	98

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks. or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirits; p) see Case Narrative.



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CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owen Brockway Glass Plant	Date Sampled: 06/30/05
	Client Contact: Chris Kennedy	Date Received: 07/01/05
	Client P.O.:	Date Extracted: 07/01/05
		Date Analyzed: 07/03/05-07/06/05

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3510C

Analytical methods: SW8015C

Work Order: 0507024

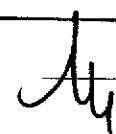
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0507024-001B	MW-2	W	1,600,000,a,g,h	1,200,000	1000	—#
0507024-002B	MW-5	W	34,000,b,g,h	26,000	20	104
0507024-003B	MW-6	W	270,000,b,g,h	200,000	200	86
0507024-004B	MW-7	W	290,000,a,g,h	150,000	100	110
0507024-005B	MW-8	W	4600,a,d,g	1400	1	103
0507024-006B	MW-10	W	2500,b,g	2300	1	101
0507024-007B	MW-13	W	56,b	ND	1	96
0507024-008B	MW-15	W	240,g,b	360	1	95
0507024-009B	MW-16	W	66,b	ND	1	98
0507024-010B	MW-17	W	1,600,000,a,g,h	650,000	1000	—#
0507024-011B	MW-19	W	1700,d,b,g	350	1	104
0507024-012B	MW-20	W	50,b	ND	1	99

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

 Angela Rydelius, Lab Manager



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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507024

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 16981			Spiked Sample ID: 0507020-013A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	60	93	93.9	1.01	103	97.1	5.46	70 - 130	70 - 130
MTBE	ND	10	96	88.4	8.30	96.1	98.5	2.47	70 - 130	70 - 130
Benzene	ND	10	93.8	89.6	4.59	95.1	99.9	4.96	70 - 130	70 - 130
Toluene	ND	10	95.8	91.5	4.58	88.5	93.2	5.25	70 - 130	70 - 130
Ethylbenzene	ND	10	95.6	92.4	3.37	97.2	99.9	2.77	70 - 130	70 - 130
Xylenes	ND	30	95.3	94.7	0.702	95.3	96.3	1.04	70 - 130	70 - 130
%SS:	112	10	102	99	3.20	97	100	2.24	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 16981 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507024-001A	6/30/05 2:53 PM	7/09/05	7/09/05 7:16 AM	0507024-002A	6/30/05 11:42 AM	7/12/05	7/12/05 12:30 AM
0507024-003A	6/30/05 11:11 AM	7/12/05	7/12/05 1:36 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

^E TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer



McC Campbell Analytical, Inc.

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 Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507024

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 16989			Spiked Sample ID: 0507026-006A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	92.7	94.3	1.70	95.5	102	7.02	70 - 130	70 - 130
MTBE	ND	10	87.4	88.4	1.19	96.1	99	3.02	70 - 130	70 - 130
Benzene	ND	10	88.5	90.7	2.48	95.3	98	2.72	70 - 130	70 - 130
Toluene	ND	10	90.1	92.5	2.70	88.3	90.4	2.29	70 - 130	70 - 130
Ethylbenzene	ND	10	90.8	93.5	3.00	91.2	98.3	7.44	70 - 130	70 - 130
Xylenes	ND	30	90.7	95	4.67	92	96	4.26	70 - 130	70 - 130
%SS:	101	10	99	98	0.309	100	99	0.281	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 16989 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507024-004A	6/30/05 10:45 AM	7/12/05	7/12/05 2:40 AM	0507024-005A	6/30/05 2:25 PM	7/12/05	7/12/05 4:51 AM
0507024-006A	6/30/05 12:15 PM	7/12/05	7/12/05 3:13 AM	0507024-007A	6/30/05 1:30 PM	7/07/05	7/07/05 12:52 AM
0507024-008A	6/30/05 1:55 PM	7/07/05	7/07/05 1:24 AM	0507024-009A	6/30/05 12:40 PM	7/07/05	7/07/05 1:57 AM
0507024-010A	6/30/05 1:05 PM	7/12/05	7/12/05 4:18 AM	0507024-011A	6/30/05 10:17 AM	7/09/05	7/09/05 11:42 AM
0507024-012A	6/30/05 9:50 AM	7/07/05	7/07/05 3:03 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
[£] TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

J QA/QC Officer



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507024

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 16984			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	108	108	0	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	84	84	0	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 16984 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507024-001B	6/30/05 2:53 PM	7/01/05	7/06/05 6:15 PM	0507024-002B	6/30/05 11:42 AM	7/01/05	7/06/05 3:40 PM
0507024-003B	6/30/05 11:11 AM	7/01/05	7/06/05 6:15 PM	0507024-004B	6/30/05 10:45 AM	7/01/05	7/06/05 8:40 PM
0507024-005B	6/30/05 2:25 PM	7/01/05	7/05/05 11:01 PM	0507024-006B	6/30/05 12:15 PM	7/01/05	7/03/05 8:49 AM
0507024-007B	6/30/05 1:30 PM	7/01/05	7/05/05 9:50 PM	0507024-008B	6/30/05 1:55 PM	7/01/05	7/03/05 6:32 AM
0507024-009B	6/30/05 12:40 PM	7/01/05	7/03/05 8:49 AM	0507024-010B	6/30/05 1:05 PM	7/01/05	7/06/05 8:40 PM
0507024-011B	6/30/05 10:17 AM	7/01/05	7/06/05 1:38 AM	0507024-012B	6/30/05 9:50 AM	7/01/05	7/03/05 7:41 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer



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Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507024

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 17090			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	117	115	1.84	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	95	91	4.64	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 17090 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507024-001C	6/30/05 2:53 PM	7/12/05	7/13/05 10:54 PM	0507024-002C	6/30/05 11:42 AM	7/12/05	7/13/05 3:51 PM
0507024-003C	6/30/05 11:11 AM	7/12/05	7/14/05 1:11 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = $100 * (MS - Sample) / (Amount Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



McC Campbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mcccampbell.com E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507024

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 17094			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	106	107	0.457	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	97	97	0	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 17094 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507024-004C	6/30/05 10:45 AM	7/12/05	7/13/05 8:37 PM	0507024-010C	6/30/05 1:05 PM	7/12/05	7/13/05 6:20 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CKG - 0507024

CONDUCT ANALYSIS TO DETECT

LAB

McC Campbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION _____

CHAIN OF CUSTODY

BTS # 050630-PW-1

CLIENT CKG Environmental

SITE Owens Brockway Glass Plant

3600 Alameda Avenue

Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH - D (8015)	Motor Oil	TPH-G	BTEX	EPA 8270	MTBE	TPH, mo (w/o sheen) 7/2, 02	CONDUCTIVITY
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	
X	X	X	X		X	X	

SPECIAL INSTRUCTIONS

Invoice and Report to : CKG Environmental
808 Zinfandel Lane, St Helena, CA 94574
Attn: Christina Kennedy

Dissolved product in samples MW-2 and MW-6

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H ₂ O	CONTAINERS TOTAL	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2+15	6-30	1453	W	5				
MW-5+2		1142						
MW-6+5		1111						
MW-7+2		1045						
MW-8+15		1425						
MW-10+10		1215						
MW-13+10		1330						
MW-15+7		1355						
MW-16+1		1240						
MW-17+5		1305						

GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION

APPROPRIATE CONTAINERS
PRESERVED IN LAB

VOAS | O&G | METALS | OTHER

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED	
	6-30-05	1515	Dave Walter	NO LATER THAN Per Client	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
David A. Glatt	6-30-05	1645	Christina Kennedy Sample Custodian	6/30/05	1645
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[Signature]	7/1/05	1407	[Signature]	2/1/05	1407
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[Signature]	7/1/05	540	[Signature]		
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

McC Campbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION _____

CHAIN OF CUSTODY

BTS #

CLIENT: CKG Environmental
SITE: Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

C = COMPOSITE ALL CONTAINERS

CONDUCTIVITY

SPECIAL INSTRUCTIONS

Invoice and Report to : CKG Environmental
808 Zinfindel Lane, St Helena, CA 94574
Attn: Christina Kennedy

Dissolved product in samples MW-2 and MW-6

SAMPLE I.D.	DATE	TIME	MATRIX		TOTAL	C = COMPOSITE ALL CONTAINERS	TPH - D (8015)	Motor Oil	TPH-G	BTEX	EPA 8270	MTBE	TDS	CONDUCTIVITY	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			S=SOIL	W=H ₂ O														
① MW-19+2	6-30	1017	W	S	5		X	X	X	X		X						
② MW-20+2	6-30	0950	W	S	5		X	X	X	X		X						

GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION

APPROPRIATE CONTAINERS
 PRESERVED IN LAB

YDAS | OAG | METALS | OTHER

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN	
	6-30-05	1515	Dave Walter	Per Client	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
David C. Walt	6-30-05	1645	[Signature]	6/30/05	1645
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[Signature]	7/1/05	1407	[Signature]	7/1/05	1407
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[Signature]	7/1/05	540	[Signature]	7/1/05	1740
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		

McCampbell Analytical, Inc.



110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0507024

ClientID: CKGS

EDF: NO

Report to:

Chris Kennedy
 CKG Environmental
 808 Zinfandel Lane
 St. Helena, CA 94574

TEL: (707) 967-8022
 FAX: (707) 967-8080
 ProjectNo: Owen Brockway Glass Plant
 PO:

Bill to:

Accounts Payable
 CKG Environmental
 808 Zinfandel Lane
 St. Helena, CA 94574

Requested TAT:

5 days

Date Received: 07/01/2005

Date Printed: 07/12/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0507024-001	MW-2	Water	6/30/05 2:53:00 PM	<input type="checkbox"/>	A	B														
0507024-001	MW-2 (w/o sheen)	Water	6/30/05 2:53:00 PM	<input type="checkbox"/>		C														
0507024-002	MW-5	Water	6/30/05 11:42:00	<input type="checkbox"/>	A	B														
0507024-002	MW-5 (w/o sheen)	Water	6/30/05 11:42:00	<input type="checkbox"/>		C														
0507024-003	MW-6	Water	6/30/05 11:11:00	<input type="checkbox"/>	A	B														
0507024-003	MW-6 (w/o sheen)	Water	6/30/05 11:11:00	<input type="checkbox"/>		C														
0507024-004	MW-7	Water	6/30/05 10:45:00	<input type="checkbox"/>	A	B														
0507024-004	MW-7 (w/o sheen)	Water	6/30/05 10:45:00	<input type="checkbox"/>		C														
0507024-005	MW-8	Water	6/30/05 2:25:00 PM	<input type="checkbox"/>	A	B														
0507024-006	MW-10	Water	6/30/05 12:15:00	<input type="checkbox"/>	A	B														
0507024-007	MW-13	Water	6/30/05 1:30:00 PM	<input type="checkbox"/>	A	B														
0507024-008	MW-15	Water	6/30/05 1:55:00 PM	<input type="checkbox"/>	A	B														
0507024-009	MW-16	Water	6/30/05 12:40:00	<input type="checkbox"/>	A	B														
0507024-010	MW-17	Water	6/30/05 1:05:00 PM	<input type="checkbox"/>	A	B														
0507024-010	MW-17 (w/o sheen)	Water	6/30/05 1:05:00 PM	<input type="checkbox"/>		C														

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)_W	3		4		5
6		7		8		9		10
11		12		13		14		15

Prepared by: Rosa Venegas

Comments: 001-004,010 added for TPHdmo w/o Sheen on 7/12/05 per C.K. on 5d

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McC Campbell Analytical, Inc.



110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0507024

ClientID: CKGS

EDF: NO

Report to:

Chris Kennedy
CKG Environmental
808 Zinfandel Lane
St. Helena, CA 94574

TEL: (707) 967-8022
FAX: (707) 967-8080
ProjectNo: Owen Brockway Glass Plant
PO:

Bill to:

Accounts Payable
CKG Environmental
808 Zinfandel Lane
St. Helena, CA 94574

Requested TAT:

5 days

Date Received: 07/01/2005

Date Printed: 07/12/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)																									
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15											
0507024-011	MW-19	Water	6/30/05 10:17:00	<input type="checkbox"/>	A	B																								
0507024-012	MW-20	Water	6/30/05 9:50:00 AM	<input type="checkbox"/>	A	B																								

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)_W	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Rosa Venegas

Comments: 001-004.010 added for TPHdmo w/o Sheen on 7/12/05 per C.K. on 5d

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.