RO289

OWENS-ILLINOIS
GLASS CONTAINERS
North America

January 22, 2007

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

Subject: 2006 Groundwater Monitoring Report
Owens-Brockway Glass Container – Oakland, CA

Dear Mr. Gholami:

Attached is the 2006 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,

Robert C. Neal

Robert C. Neal, P.E.
Environmental Administrator

3600 Alameda Ave. • Oakland, CA 94601 • Tel: 510-436-2000 • Fax: 510-436-2076

2006 GROUNDWATER MONITORING REPORT

OWENS-BROCKWAY GLASS CONTAINER FACILITY OAKLAND, CALIFORNIA

CKG Environmental, Inc.
808 Zinfandel Lane
St. Helena, CA 94574

A Report Prepared for:

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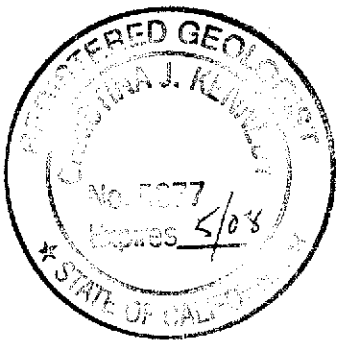
2006 GROUNDWATER MONITORING REPORT

OWENS-BROCKWAY GLASS CONTAINER FACILITY, OAKLAND, CALIFORNIA

January 12, 2007

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 2006. 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 September 11, 2006, 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 September 11, 2006 a round of groundwater sampling in the monitoring wells was performed. Sheen was observed in MW-2, MW-6, and MW-17 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, however the glass was removed over the next few weeks so MW-1 was accessible on October 19 and was sampled at that time. MW-9, which is located in the middle of the loading ramp, could not be safely accessed. MW-19 could not be located on September 11 however Owens-Brockway personnel located the well and it was sampled later on September 19.

On September 11 it was noted that the wellhead on MW-17 was broken and that the water was unusually dirty, with a visible sheen, which had not been noted previously. The well was sampled however CKG was concerned that the well may have been impacted by surface runoff. Owens-Brockway was performing facility maintenance at the time which including using a vacuum truck to clean out equipment. CKG coordinated with Owens-Brockway and NRC Environmental Services to use the vacuum truck to extract as much water as possible from MW-17. This work was performed to evaluate whether or not there would be a difference in the

analytical result after a significant volume of water was extracted. The water extraction was completed on October 17, 2006. MW-17 was resampled on October 19, 2006.

The 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

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-1, MW-2, MW-5, MW-6, 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 830,000 µg/l. The highest concentrations were detected in MW-2. Separate phase sheen was observed in MW-2, MW-5, MW-6, and 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.

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

Petroleum hydrocarbons quantified as gasoline, were detected in one water sample as summarized in Table 3. TPHg was detected in MW-17 at 26,000 µg/l which was substantially higher than observed in the past. As discussed in Section 3.2 CKG was concerned that the water in MW-17 may have been affected by surface runoff because the wellhead was damaged. After the well was cleaned and resampled the TPHg result was 1,600 µg/l, which was similar to that observed in 2005. 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. TPH quantified as diesel/motor oil was detected at MW-17 at 2,300,000 µg/l (September 11 sampling). After the well was cleaned out the TPHd concentration was 1,100,000 µg/l (October 19 sampling), which was similar to that observed in 2005. A review of the historical data for TPHd at MW-17 illustrates that the concentration of TPHd has increased over the monitoring time.

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, with the exception of TPHd in the vicinity of MW-17. 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. CKG Environmental submitted a work plan to prepare a Site Conceptual Model (SCM) on April 6, 2005. The SCM must be completed before any request for case closure, or any other action will be considered by Alameda County. Alameda County has not yet approved or commented on the SCM work plan.

6.0 REFERENCES

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

CKG Environmental, Inc. 2005 Groundwater Monitoring Report, Owens-Brockway Glass Container Facility, Oakland, California November 29, 2005.

CKG Environmental, Inc. 2005, Work Plan to Prepare a Site Conceptual Model, Owens-Brockway Glass Container Facility, Oakland, California. April 6, 2005.

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 Elelvation[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 September 11, 2006

Well Number	Date Installed	Top of Casing Elelvation[(a)]	Depth to Water	Groundwater Elevation
MW-1	9/12/1986	16.02	NM	
MW-2	12-Sep-86	17.11	12.5	4.61
MW-4	12-Sep-86	16.02	NM	
MW-5	12-Sep-86	16.19	11.78	4.41
MW-6	12-Sep-86	17.48	13.49	3.99
MW-7	12-Sep-86	16.11	12.76	3.35
MW-8	12-Sep-86	16.57	9.05	7.52
MW-9	12-Sep-86	7.33[(d)]	NM	
MW-10	12-Sep-86	15.96	9.54	6.42
MW-11	12-Sep-86	13.99	NM	
MW-12	12-Sep-86	13.83	NM	
MW-13	12-Sep-86	13.98	10.03	3.95
MW-15	12-Sep-86	15.16	11.46	3.7
MW-16	12-Sep-86	13.48	9.23	4.25
MW-17	12-Sep-86	14.17	9.58	4.59
MW-19	01-May-03	NA	NM	
MW-20	01-Dec-00	12.74	9.81	2.93

(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

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-1	9/23/1986	<10	<10	NA	<10	<.01	<.01	25,000
	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	<0.5	<0.5	<0.5	<0.5	190[a]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	160[a]	<50	NA
	12/11/2001	not accessible						
	12/6/2002	<0.5	<0.5	<0.5	<0.5	69[a]	<50	NA
	3/15/2004	not accessible						
	6/30/2005	not accessible						
	10/19/2006	<0.5	<0.5	<0.5	<0.5	5400	120	3300
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	<0.5	<0.5	<0.5	<0.5	1,600,000	2900	1,200,000
	9/11/2006	<2.5	4.4	19	60	830,000	13000[b]	530,000
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	190,000	NA	NA
	6/8/1988	NA	NA	NA	NA	16,000	NA	NA
	9/14/1988	floating product						
		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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)
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	7,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	660	1.3	NA
	12/1/1987	BDL	BDL	NA	8.9	100	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
		Destroyed						
MW-5	10/3/1986	<5	<5	NA	6.6	NA	1400	24,000
	4/9/1987	<5	<5	NA	<5	NA	54	NA
	9/16/1987	NA	NA	NA	NA	960	NA	NA
	12/1/1987	NA	NA	NA	NA	2000	NA	NA
	3/9/1988	NA	NA	NA	NA	<50	NA	NA
	6/8/1988	NA	NA	NA	NA	12,000	NA	NA
	9/14/1988	NA	NA	NA	NA	6,300	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	11,600	<50	NA
	11/2/1998	floating product						
	12/6/2000	<0.5	<0.5	<0.5	<0.5	11,700[a]	1000	NA
	12/12/2001	<0.5	<0.5	<0.5	<0.5	10,000[a]	360[b]	NA
	12/6/2002	<0.5	<0.5	<0.5	<0.5	5,200[a]	150[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	46,000[a]	180[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	34,000	100	26,000
	9/11/2006	<0.5	<0.5	<0.5	<0.5	45,000	300[a]	33,000
MW-6	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	400,000	NA	NA
	12/1/1987	NA	NA	NA	NA	30,000	NA	NA
	3/7/1988	NA	NA	NA	NA	9,800	NA	NA
	6/8/1988	NA	NA	NA	NA	63,000	NA	NA
	9/14/1988	NA	NA	NA	NA	140,000	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	<0.5	<0.5	<0.5	<0.5	270,000	300	200,000
	9/11/2006	<0.5	<0.5	<0.5	<0.5	100,000	700[a]	77,000

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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)
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	8,000
	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	790,000	NA	NA
	12/1/1987	NA	NA	NA	NA	5,300	NA	NA
	3/9/1988	NA	NA	NA	NA	<50	NA	NA
	6/9/1988	NA	NA	NA	NA	12,000	NA	NA
	9/14/1988	NA	NA	NA	NA	67,000	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	37,000[a]	850	NA
	11/2/1998	floating product						
	12/6/2000	<5	<.05	<.05	1.90	3,580[a]	540	NA
	12/12/2001	<1	<1	<1	<1	12,600[a]	1200[b]	NA
	12/6/2002	<0.5	<0.5	<0.5	<0.5	27,600[a]	480[b]	NA
	3/15/2004	<0.5	<0.5	0.57	1.10	170,000[a]	890[b]	NA
	6/30/2005	<.05	<.05	3.1	<.05	290,000	3000	150,000
	9/11/2006	<5	<5	<5	<5	310,000	6600[a]	150,000
MW-8	10/23/1986	<0.2	<0.2	NA	<1	NA	1300	14,000
	4/9/1987	<0.5	<0.2	NA	<1	NA	73	NA
	9/16/1987	floating product						
	12/1/1987	NA	NA	NA	NA	630	NA	NA
	3/9/1988	NA	NA	NA	NA	2,600	NA	NA
	6/9/1988	NA	NA	NA	NA	1,700	NA	NA
	9/14/1988	NA	NA	NA	NA	150	NA	NA
	8/12/1997	floating product						
	9/16/1997	<0.5	<0.5	<0.5	<0.5	290[a]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	1,300[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	160[a]	<50	NA
	12/12/2001	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	170[a]	55[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	3,000[a]	320[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	4,600	1100	1,400
	9/11/2006	<0.5	<0.5	<0.5	2.1	1800	1200	760

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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

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-9	4/9/1987	floating product						
	9/16/1987	NA	NA	NA	NA	1,300	NA	NA
	12/1/1987	NA	NA	NA	NA	18,000	NA	NA
	3/9/1988	NA	NA	NA	NA	47,000	NA	NA
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	<13	<13	<13	18.00	28,000[a]	6000	NA
	11/2/1998	floating product						
	12/6/2000	<5	<.5	<.5	<.5	102,000[a]	790	NA
	12/12/2001	innaccessible						
	12/5/2002	innaccessible						
	3/15/2004	innaccessible						
	6/30/2005	innaccessible						
	9/11/2006	innaccessible						
MW-10	10/23/1986	<0.2	<0.2	NA	<0.2	NA	380	7,200
	4/9/1987	<0.2	<0.2	NA	<0.2	NA	300	NA
	9/16/1987	NA	NA	NA	NA	3,800	NA	NA
	12/1/1987	NA	NA	NA	NA	590	NA	NA
	3/8/1988	NA	NA	NA	NA	<50	NA	NA
	6/8/1988	NA	NA	NA	NA	3,800	NA	NA
	9/14/1988	NA	NA	NA	NA	570	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	1,300[a]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	1400[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	0.70	730[a]	150	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	630[a]	210[b]	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	840[a]	210[b]	NA
	3/15/2004	<0.5	<0.5	<0.5	0.8	2,500[a]	160[b]	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	2900	140	2300
	9/11/2006	<0.5	<0.5	<0.5	0.81	3400	270	2600
MW-11	9/23/1986	<0.4	<0.4	NA	1.4	NA	<8	1,200
	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	100,000	BDL	NA
		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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

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	2,500
	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	120	BDL	NA
	6/30/2005	Destroyed						
MW-13	12/24/1986	<0.2	<0.9	NA	<0.9	NA	<10	57,000
	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	<50	7.7	NA
	6/8/1988	<5	<5	NA	<5	<50	<10	NA
	9/14/1988	<5	<5	NA	<5	130	<10	NA
	9/16/1997	<5	<5	<5	<5	120[a]	<50	NA
	11/2/1998	<5	<5	<5	<5	120[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	200[a]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	91[a]	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	190[a]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	6/30/2005	<1.0	<1.0	<1.0	<1.0	56	<50	<250
	9/11/2006	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
MW-14	9/23/1986	<0.4	<0.2	NA	<0.2	NA	<8	3,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	56	1.7	NA
	12/1/1987	1.2	4	NA	10	66	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	20	NA
	6/8/1988	inaccessible						
	9/14/1988	inaccessible						
		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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

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	<0.2	<0.9	NA	9.20	NA	120	1,600
	4/9/1987	<5	<5	NA	<5	NA	<0.5	NA
	9/16/1987	<5	<5	NA	<5	<100	8.4	NA
	12/1/1987	3.30	0.84	NA	14	NA	<0.5	NA
	3/8/1988	0.80	<5	NA	<5	<100	90	NA
	6/9/1988	<5	<5	NA	<5	<100	53	NA
	9/14/1988	NA	NA	NA	NA	100	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	127[(a)]	<50	NA
	11/2/1998	<0.5	<0.5	<0.5	<0.5	340[(a)]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	400[(a)]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	290[(a)]	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	440[(a)]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	240	<50	360
	9/11/2006	<0.5	<0.5	<0.5	<0.5	56	<50	<250
MW-16	12/24/1986	<0.2	<0.9	NA	<.9	NA	<10	1,200
	4/9/1987	<5	<5	NA	<5	NA	<.5	NA
	9/16/1987	<5	<5	NA	<5	64	<.5	NA
	12/1/1987	1.00	0.37	NA	9.1	150	120	NA
	3/7/1988	0.50	<5	NA	<5	<100	10	NA
	6/8/1988	<5	<5	NA	<5	<100	<0.5	NA
	9/14/1988	<5	<5	NA	<5	190	<0.5	NA
	9/16/1997	floating product						
	12/6/2000	<0.5	<0.5	<0.5	<0.5	97[(a)]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	<50	<50	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	51[(a)]	<50	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	63	<50	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	66	<50	<250
	9/11/2006	<0.5	<0.5	<0.5	<0.5	140	<50	550

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
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)
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-17	12/24/1986	5	1.20	NA	14.00	NA	240	2,400
	4/9/1987	<5	<5	NA	<5	NA	<0.5	NA
	9/16/1987	<5	<5	NA	0.55	680	44	NA
	12/1/1987	7.80	2.40	NA	28	1,300	540	NA
	3/8/1988	83.00	<5	NA	46	3,800	4300	NA
	6/8/1988	innaccessible						
	9/14/1988	<0.5	<0.5	<0.5	<0.5	64,000	54000	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	119,600[a]	1900	NA
	11/2/1998	<0.5	<0.5	<0.5	0.60	16,000[a]	<50	NA
	12/6/2000	<0.5	<0.5	<0.5	<0.5	47,800[a]	340	NA
	12/11/2001	<10	<10	<10	<10	101,000[a]	5300[b]	NA
	12/5/2002	<0.5	<0.5	<0.5	<0.5	71,000[a]	700[b]	NA
	3/15/2004	2.1	0.71	<0.5	1.5	660,000[a]	1400[b]	NA
	6/30/2005	<0.5	2.4	<0.5	1.1	1,600,000	1700	NA
	9/11/2006	<2.5	36	9.50	79	2,300,000	26,000	810,000
re-test	10/19/2006	5.90	<1.0	<1.0	3.7	1,100,000	1,600	480,000
MW-18	9/23/1986	<0.3	<0.3	NA	0.99	NA	<20	1,600
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	480	BDL	NA
	12/1/1987	BDL	BDL	NA	6.6	180	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	190	BDL	NA
		Destroyed						
MW-19	6/23/2004	<0.5	<0.5	<0.5	<0.5	1,100	480	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	1,100[a]	330[b]	NA
	6/30/2005	<0.5	<0.5	1.5	4.5	1700	840	350
	9/18/2006	<0.5	<0.5	<0.5	0.83	890	280	280
MW-20	12/11/2000	<0.5	<0.5	<0.5	<0.5	110[a]	<50	NA
	4/6/2001	<0.5	<0.5	<0.5	<0.5	57[a]	<50	NA
	7/6/2001	<0.5	<0.5	<0.5	<0.5	120[a]	<50	NA
	9/19/2001	<0.5	<0.5	<0.5	<0.5	160[a]	<50	NA
	12/11/2001	<0.5	<0.5	<0.5	<0.5	82[a]	86[b]	NA
	2/6/2002	<0.5	<0.5	<0.5	<0.5	85[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	<500	<50	NA
	9/11/2006	<0.5	<0.5	<0.5	<0.5	<50	<50	<250

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
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TOG - Total Oil and Grease in ug/l
TPHmo - Total Petroleum Hydrocarbons as Motor Oil ug/l (after 2004)

BDL - Below detection limit
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(a) - Quantified as diesel but chromatogram did not match diesel pattern

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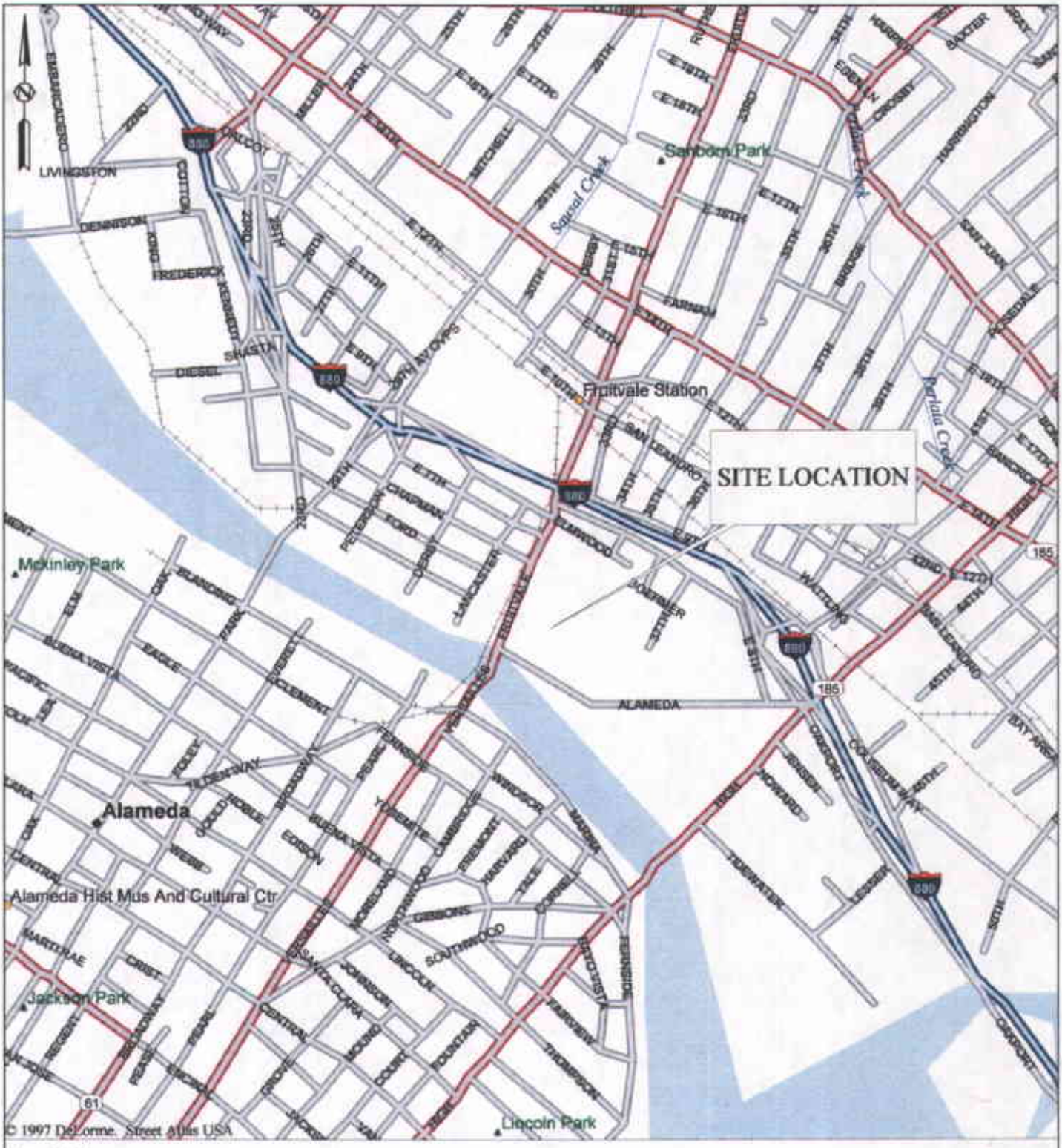


Mag 15.00
Mon Jul 28 16:01 2003
Scale 1:15,625 (at center)
1000 Feet

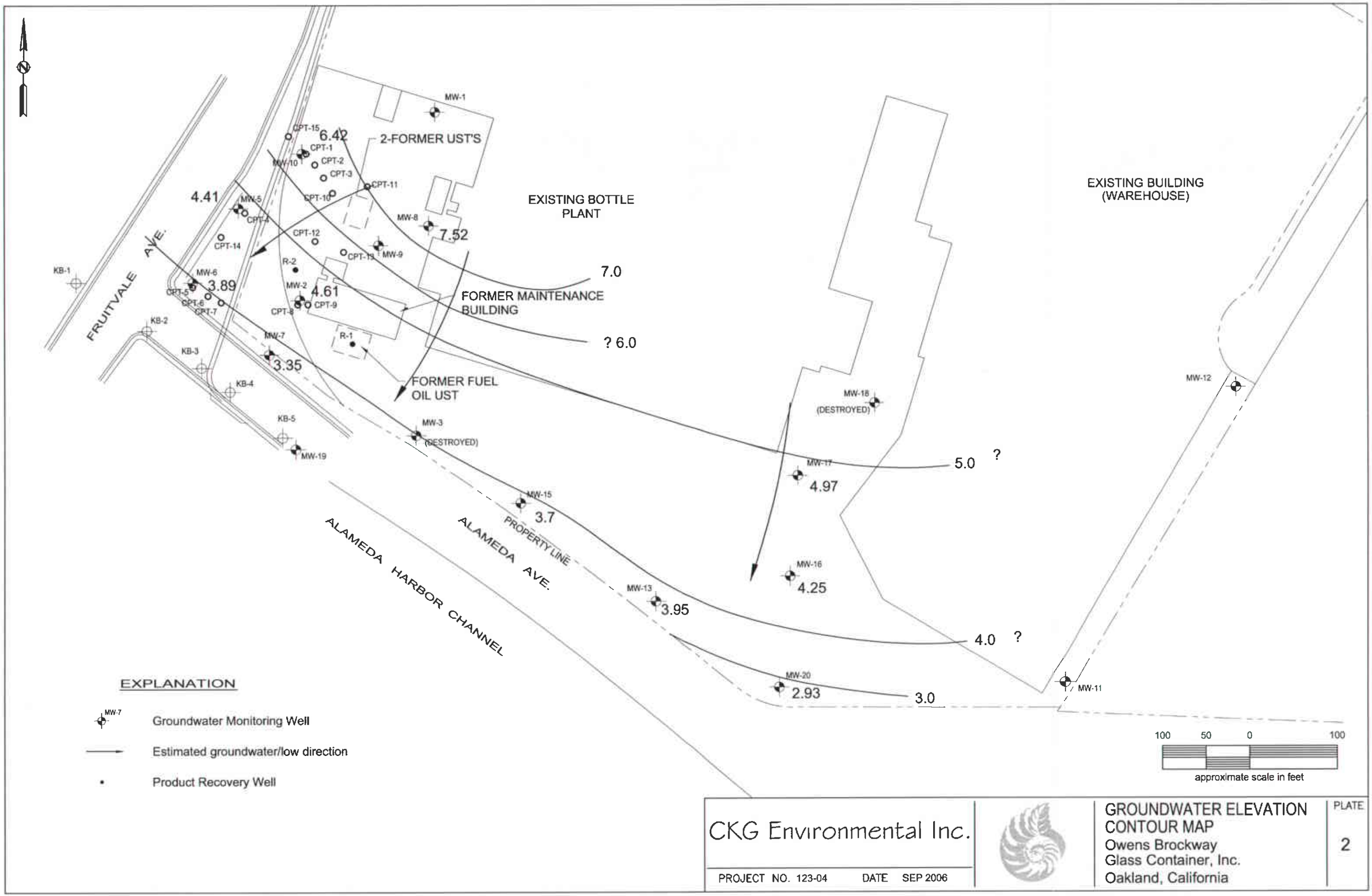
CKG Environmental Inc.

PROJECT NO. 123-04 DATE SEPT 2006

SITE LOCATION MAP

Owens Brockway
Glass Container, Inc.
Oakland, California

PLATE 1

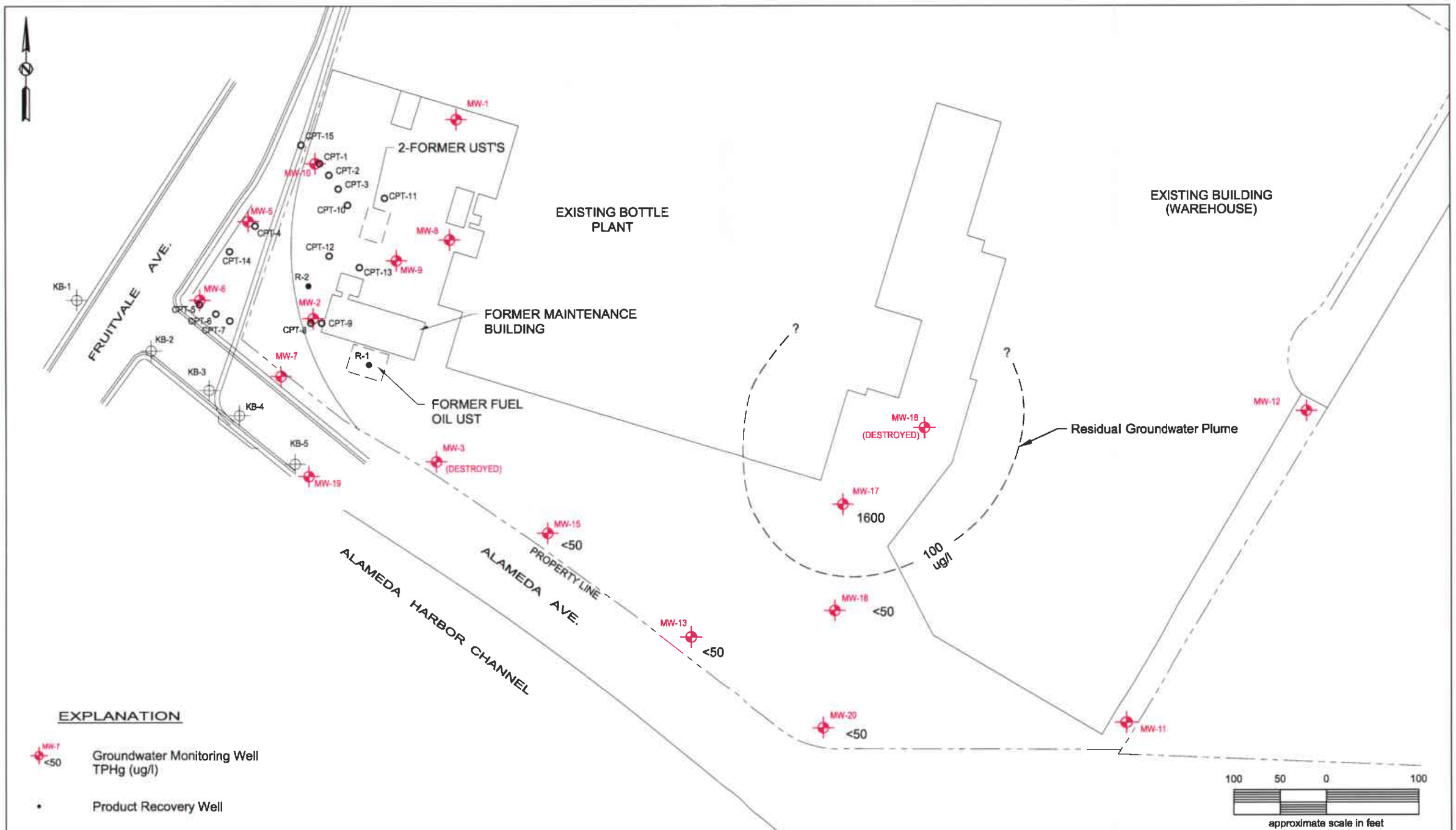


CKG Environmental Inc.

PROJECT NO. 123-04 DATE SEP 2006

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

PLATE 2

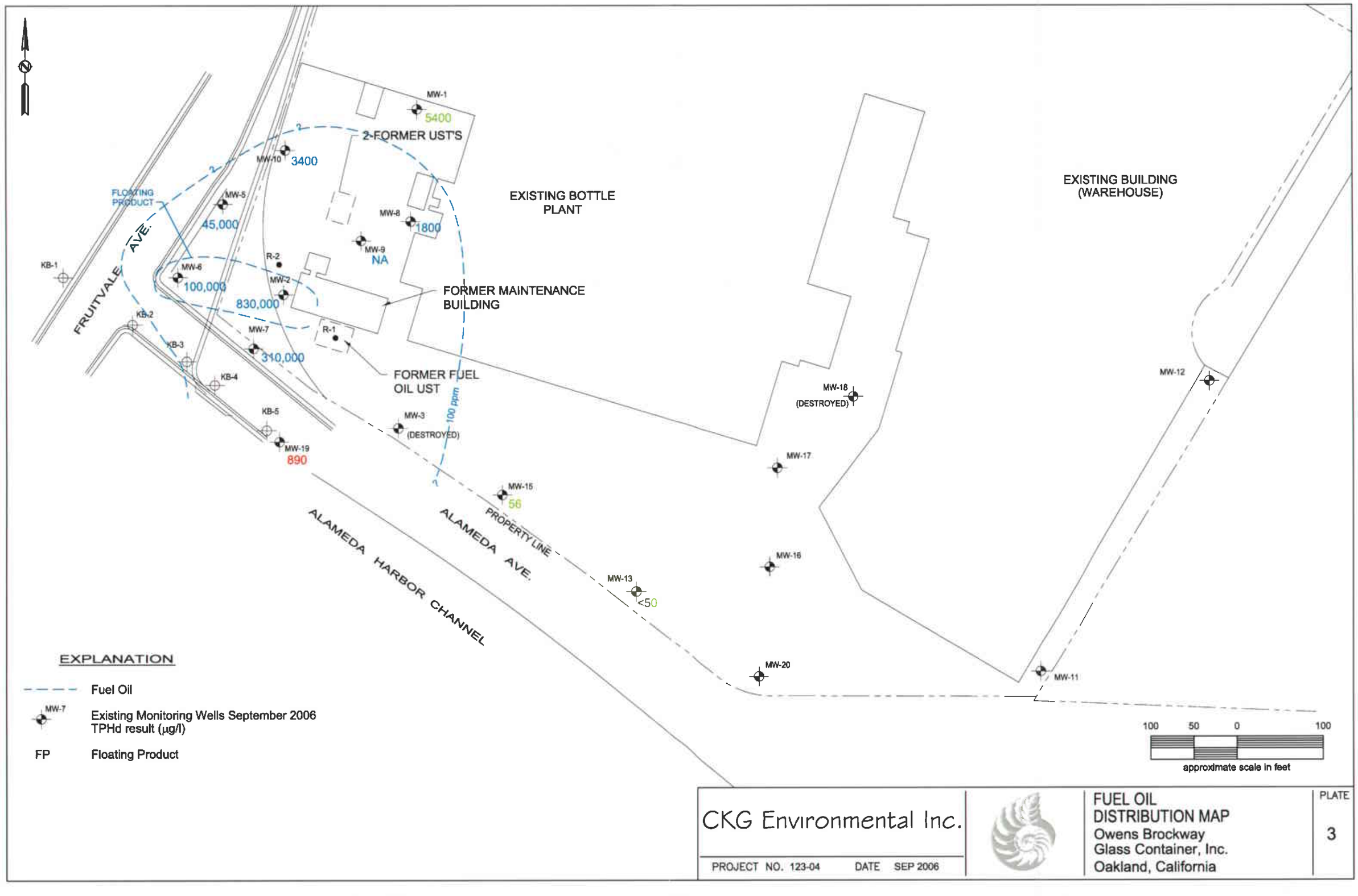


EXPLANATION

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

• — Product Recovery Well

CKG Environmental Inc.		GASOLINE DISTRIBUTION MAP Owens Brockway Glass Container, Inc. Oakland, California	PLATE 4
PROJECT NO. 123-04	DATE SEP 2006		



CKG Environmental Inc.

PROJECT NO. 123-04 DATE SEP 2006

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

PLATE 3

WELL GAUGING DATA

Project # 260718-553 Date 9/18/06 Client CKS

Site 3600 Alameda Ave. OAKLAND

Well ID	Time	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	Notes
MW-19	1655	2					12.37	25.05	✓	

WELL MONITORING DATA SHEET

Project #: 060918-553	Client: CCC
Sampler: Sooch	Start Date: 9/18/06
Well I.D.: MW-19	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 25.05	Depth to Water: 12.37
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- (Disposable Bailer)
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:

- Bailer
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other:_____

2 (Gals.) X 3 = 6 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	radius² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1703	78.9	7.0	644	79	2	clear
1706	77.5	7.0	623	60	4	"
1709	76.8	7.1	611	58	6	"

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Time: 1715 Sampling Date: 9/18/06

Sample I.D.: MW-19 Laboratory: ~~STL~~ MCCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

CHAIN OF CUSTODY
BTS #

CLIENT: CKG Environmental

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

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB: McCampbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION _____

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_2O	CONTAINERS TOTAL	TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-19	9/18/06	1715	W	3	X	X	X				

SAMPLING COMPLETED: DATE 9/18/06 TIME 1715
SAMPLING PERFORMED BY: Sucheon Sung

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	9/18/06	1805		9/18/06	1810
	9/19/06	945		9/19/06	945

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

WELLHEAD INSPECTION CHECKLIST

Date 10/19/06 Client CKG @ Owens Brockaway Glass

Site Address 3600 Alameda Ave., Oakland

Job Number 061019-WC-1 Technician Will

Well ID	Well Inspected - No Corrective Action Required	Water Baled From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-17	X							
MW-1	→Well lid not secure (6"), & →TOC is jagged / Dolphin lock, not easily accessible due to large mound of broken glass.							

NOTES:

WELL GAUGING DATA

Project # 061019-WC-1 Date 10/19/06 Client CKG @ Brockaway

Site 3600 Alameda Ave Oakland

Well ID	Time	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	Notes
MW-17	0816	2					9.66	16.22	TOC	⊗
		⊗ Triple checked DTB, inconsistent w/ historical								
was escorted, able to confirm well identity, by Bill Boccacci										
MW-1	0930	2					7.93	29.06	TOC	

W. .L MONITORING DATA SHE. .

Project #: 061019-WC-1	Client: CKG @ Owens Brockway Glass
Sampler: WC	Date: 10/19/06
Well I.D.: MW-1	Well Diameter: 0 3 4 6 8 ____
Total Well Depth (TD): 29.06	Depth to Water (DTW): 7.93
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.16	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

3.4 (Gals.) X 3 = 10.2 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0945	62.6	7.0	768	251	3.5	cloudy
0950	62.7	6.9	793	275	7.0	"
0954	62.8	6.9	794	306	10.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 10.5

Sampling Date: 10/19/06 Sampling Time: 1000 Depth to Water: 9.24

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other McCampbell

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

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	

W. .L MONITORING DATA SHE. .

Project #: 061019-wc-1	Client: CRGO Owens Brockway Glass
Sampler: WC	Date: 10/19/06
Well I.D.: MW-17	Well Diameter: Ø 3 4 6 8 ___
Total Well Depth (TD): 15.22	Depth to Water (DTW): 9.68
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.79	

Purge Method: Bailer (1) Waterra
Disposable Bailer Peristaltic
Positive Air Displacement Extraction Pump
Electric Submersible Other_____

Sampling Method: Bailer
Disposable Bailer (6)
Extraction Port
Dedicated Tubing
Other: _____

1 Case Volume	Specified Volumes	Calculated Volume
0.9 (Gals.) X	3	= 2.7 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0828	70.0	6.8	989	313	1	sheen/cloudy
0831	70.2	6.7	1036	>1000	2	sheen/dark
0834	69.9	6.7	1018	>1000	3	sheen/dark

Did well dewater? Yes (No) Gallons actually evacuated: 3

Sampling Date: 10/19/06 Sampling Time: 0840 Depth to Water: 12.57

Sample I.D.: (1st) MW-17 Laboratory: Kiff CalScience Other McCampbell

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

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

Repair Data Sheet

Client CKG Environmental Date 10-10-06

Site Address 3600 Alameda Ave., Oakland

Job Number 061010AA1 Technician Andrew Adolfi

Inspection Point (Well ID or description of location)	Well inspected, Cleaned, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check Indicates deficiency: Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade	Not Securable by Design (12" diameter or less)	Lid not marked with words "MONITORING WELL"	Other Deficiency	Not Securable by Design (greater than 12" diameter)	Well Not Inspected (explain in notes)	Deficiency Logged on Repair Order	Deficiency Remains Uncorrected/Logged on Site Inspection Checklist	Partial Repair Completed/Outstanding Deficiency Logged on Repair Order	All Repairs Completed
MW-1		X	X		X									X						X
Notes: Lowered casing .02, replaced with 12" box																				
MW-2		X	X											X						X
Notes: replaced with 12" box																				
Notes:																				
Notes:																				
Notes:																				
Notes:																				

Repair Data Sheet

Client CKG Environmental Date 10-11-06

Site Address 3600 Alameda Ave, Oakland

Job Number 061010M1 Technician Andrew Adolfi

Inspection Point (Well ID or description of location)	Well Inspected, Cleaned, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check Indicates deficiency: Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade	Not Securable by Design (12" diameter or less)	Lid not marked with words "MONITORING WELL"	Other Deficiency	Not Securable by Design (greater than 12" diameter)	Well Not Inspected (explain in notes)	Deficiency Logged on Repair Order	Deficiency Remains Uncorrected/Logged on Site Inspection Checklist	Partial Repair Completed/Outstanding Deficiency Logged on Repair Order	All Repairs Completed
MW-5														X						X
Notes: Replaced with 12" box and sonotube																				
MW-7														X						X
Notes: Replaced with 12" box and sonotube																				
MW-8														X						X
Notes: Replaced with 8" box																				
Notes:																				
Notes:																				
Notes:																				

Repair Data Sheet

Client CKG Environmental Date 10-12-06

Site Address 3600 Alameda Ave, Oakland

Job Number 061010M1 Technician Andrew Aldrich

Inspection Point (Well ID or description of location)	Well Inspected, Cleaned, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check indicates deficiency: Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade	Not Securable by Design (12" diameter or less)	Lid not marked with words "MONITORING WELL"	Other Deficiency	Not Securable by Design (greater than 12" diameter)	Well Not Inspected (explain in notes)	Deficiency Logged on Repair Order	Deficiency Remains Uncorrected/Logged on Site Inspection Checklist	Partial Repair Completed/Outstanding Deficiency Logged on Repair Order	All Repairs Completed
MW-15														X						X
Notes: Replaced with 8" box																				
MW-16														X						X
Notes: Replaced with 12" box																				
Notes:																				
Notes:																				
Notes:																				
Notes:																				

WELLHEAD INSPECTION CHECKLIST

Date 9/11/06 Client CKG

Site Address 3600 Alameda Oakland

Job Number 060911-SL1 Technician SL

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		buried under broken glass						
MW-2							X	
MW-5							X	
MW-6	X							
MW-7	[illegible]						X	
MW-8							X	
MW-10		X						
MW-13	X							
MW-15							X	
MW-16							X	
MW-17							X	
MW-19		unable to locate						
MW-20							X	

NOTES MW-5 Lid broken, MW-15 lid broken.
MW-20 - 1/2 tab broken, MW-17 - No lid
MW-16 - lid broken, MW-8 - No lid
MW-7 - No lid
MW-2 - buried under debris → difficult to locate - lid broken

WELL GAUGING DATA

Project # 060911-SL1 Date 9/11/06 Client CKG

Site 3600 Alameda Oakland

Well ID	Time	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	Notes
MW-1		2	buried under broken				9.75			
* MW-2	1515	2	sock in well				12.50	26.50		
* MW-5	0800	2	sock in well				11.78	22.75		
* MW-6	0804	2	sock in well				13.49	25.76		
* MW-7	0809	2	sock in well				12.76	22.30		
MW-8	0929	2					9.05	20.30		
MW-9	0815	2					9.54	19.65		
MW-13	0835	2					10.03	20.40		
MW-15	0830	2					11.46	29.05		
* MW-16	0905	2	sock in well				9.23	20.45		
* MW-17	0900	2					9.58	19.65		
MW-A		2	unable to locate							
MW-20	0915	2					9.81	21.90		
		*	gauged w/ interface probe							

WELL MONITORING DATA SHEET

Project #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD):	Depth to Water (DTW):
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	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, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: ____

____(Gals.) X ____ = ____ 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	Unable to Sample					
	buried under mound of					
	broken glass					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory: Kiff CalScience Other ____

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 #: 060911-SL1	Client: CKG
Sampler: SL	Start Date: 9/11/06
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 26.50	Depth to Water: 12.50
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- (X) Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:

- Bailer
- (X) Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other:_____

2.2 (Gals.) X 3 = 6.6 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	radius² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1517	72.7	5.9	1313	>1000	2.2	Heavy Sheen
1521	74.2	5.8	1321	>1000	4.4	
1527	74.3	5.9	1322	>1000	6.6	

Did well dewater? Yes (No)
Gallons actually evacuated: 6.6

Sampling Time: 1530
Sampling Date: 9/11/06

Sample I.D.: MW-2
Laboratory: STL (McCampbell)

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See Scope

Equipment Blank I.D.: @ Time
Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 22.75	Depth to Water (DTW): 11.78
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.97	

Purge Method: Bailer / (X) Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / (X) Disposable Bailer / Extraction Port / Dedicated Tubing / Other: ____

1.8 (Gals.) X 3 = 5.4 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1215	69.6	7.3	1147	>1000	1.8	Sheen, Odor
1219	72.2	7.4	1165	>1000	3.6	
1225	69.7	7.3	1159	>1000	5.4	

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 9/11/06 Sampling Time: 1230 Depth to Water: 13.95

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 25.76	Depth to Water (DTW): 13.49
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.94	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
2.0 (Gals.) X	3	= 6.0 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1151	67.8	7.5	961	>1000	2.0	Odor, Heavy Sheen
1154	68.6	7.4	958	>1000	4.0	
1158	68.8	7.3	960	>1000	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 9/11/06 Sampling Time: 1205 Depth to Water: 13.52

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other McCampbell

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

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 #: ~~06~~ 060911-SL1	Client: ~~CG~~ CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 22.30	Depth to Water (DTW): 12.76
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.67	

Purge Method: Bailer; ✗ Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other______

Sampling Method: Bailer; ✗ Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ______

1.5 (Gals.) X 3 = 4.5 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
1131	72.5	7.0	1181	592	1.5	Odor, Heavy Sheen
1133	73.1	6.9	1177	>1000	3.0	
1135	73.2	7.0	1177	>1000	4.5	

Did well dewater? Yes (No) — Gallons actually evacuated: 4.5

Sampling Date: 9/11/06 — Sampling Time: 1140 — Depth to Water: 13.05

Sample I.D.: MW-7 — Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 20.30	Depth to Water (DTW): 9.05
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.30	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: _____

1.8 (Gals.) X	3	= 5.4 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1310	66.5	7.5	3259	>1000	1.8	Grey
1315	66.1	7.3	3264	>1000	3.6	
1320	66.4	7.2	3272	>1000	5.4	
			RXN w/	HCl		

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 9/11/06 Sampling Time: 1325 Depth to Water: 9.50

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.65	Depth to Water (DTW): 9.54
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.56	

Purge Method: Bailer / X Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / X Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

1.6 (Gals.) X	3	= 4.8 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1240	79.2	7.5	967	>1000	1.6	Grey
1245	73.8	7.4	943	>1000	3.2	
1250	72.9	7.5	952	>1000	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 9/11/06 Sampling Time: 1300 Depth to Water: 10.14

Sample I.D.: MW-10 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-13	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 20.40	Depth to Water (DTW): 10.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.10	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.7 (Gals.) X 3 = 5.1 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1410	77.1	8.0	693	>1000	1.7	Brown
1415	75.3	8.0	678	>1000	3.4	
1420	74.9	7.9	679	>1000	5.1	

Did well dewater? Yes (No) Gallons actually evacuated: 5.1

Sampling Date: 9/11/06 Sampling Time: 1425 Depth to Water: 11.53

Sample I.D.: MW-13 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-15	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 29.05	Depth to Water (DTW): 11.46
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.98	

Purge Method: Bailer / ~~Disposable Bailer~~ / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other____

Sampling Method: Bailer / ~~Disposable Bailer~~ / Extraction Port / Dedicated Tubing / Other: ____

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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1333	70.8	7.5	2094	>1000	2.8	Brown
1338	70.8	7.4	2106	>1000	5.6	
1343	70.8	7.4	2093	>1000	8.4	

Did well dewater? Yes (No) Gallons actually evacuated:

Sampling Date: 9/11/06 Sampling Time: 1345 Depth to Water:

Sample I.D.: MW-15 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-16	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 20.45	Depth to Water (DTW): 9.23
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.47	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

1.8 (Gals.) X 3 = 5.4 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1022	73.4	7.3	780	>1000	1.8	Dark Brown
1025	73.1	7.3	770	>1000	3.6	
1028	73.0	7.3	770	>1000	5.4	

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 9/11/06 Sampling Time: 1035 Depth to Water: 11.23

Sample I.D.: MW-16 Laboratory: Kiff CalScience Other McCampbell

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-17	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.65	Depth to Water (DTW): 9.58
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.59	

Purge Method: Bailer; ✓ Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: Bailer; ✓ Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1.6 (Gals.) X 3 = 4.8 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1044	71.9	7.1	1013	>1000	1.6	Black, Odor
1047	72.6	7.1	1034	>1000	3.2	
1050	72.4	7.0	1036	>1000	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 9/11/06 Sampling Time: 1100 Depth to Water: 11.59

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

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

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 #: 060911-SL1	Client: CKG
Sampler: SL	Start Date: 9/11/06
Well I.D.: MW-19	Well Diameter: 2 3 4 6 8 ___
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:
- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:
- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other:_____

_____(Gals.) X _____ = _____ 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	radius² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
	unable to sample					
	→ well underneath large amount					
	of mulch → unable to locate					
	after 20 min + of searching					

Did well dewater? Yes No		Gallons actually evacuated:	
Sampling Time:		Sampling Date:	
Sample I.D.:		Laboratory: STL	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other:	
Equipment Blank I.D.:	@ Time	Duplicate I.D.:	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other:	
D.O. (if req'd):	Pre-purge: mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge: mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 060911-SL1	Client: CKG
Sampler: SL	Date: 9/11/06
Well I.D.: MW-20	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 21.90	Depth to Water (DTW): 9.81
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.23	

Purge Method: Bailer; (X) Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (X) Disposable Bailer; Extraction Port; Dedicated Tubing; Other:_____

1.9 (Gals.) X 3 = 5.7 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1001	72.0	7.1	1006	792	1.9	Brown
1003	70.8	7.1	985	>1000	3.8	
1005	70.1	7.1	952	>1000	5.7	

Did well dewater? Yes (No) Gallons actually evacuated: 5.7

Sampling Date: 9/11/06 Sampling Time: 1010 Depth to Water: 11.00

Sample I.D.: MW-20 Laboratory: Kiff CalScience Other McCampbell

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

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

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 060911-SL1

CLIENT: CKG Environmental

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

CONDUCT ANALYSIS TO DETECT

LAB: McCampbell | DHS #

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

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 S= SOIL W=H_2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-5	9/11/06	1230	W	3		X	X	X				
MW-6		1205	W	3		X	X	X				
MW-7		1140	W	3		X	X	X				
MW-8		1325	W	3		X	X	X				
MW-10		1300	W	3		X	X	X				
MW-13		1425	W	3		X	X	X				
MW-15		1345	W	3		X	X	X				
MW-16		1035	W	3		X	X	X				
MW-17		1100	W	3		X	X	X				
MW-20	↓	1010	W	3		X	X	X				

SAMPLING COMPLETED: DATE 9/11/06 TIME 1600 | SAMPLING PERFORMED BY: S. Lane

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
S Lane	9/11/06	1745	(Sample Custody)	9/11/06	1750

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

CHAIN OF CUSTODY BTS # 060911-SL1

CLIENT: CKG Environmental

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

CONDUCT ANALYSIS TO DETECT

LAB: McCampbell | DHS #

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

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 S=SOIL W=H_2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2	9/11/06	1530	W	3		X	X	X				

SAMPLING COMPLETED: DATE 9/11/06 TIME 1600
SAMPLING PERFORMED BY: S. Lane

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
S. Lane	9/11/06	1745	(Sample Custody)	9/11/06	1750

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: #061019-WC-1	Date Sampled: 10/19/06 Date Received: 10/20/06
	Client Contact: Chris Kennedy	Date Reported: 10/26/06
	Client P.O.:	Date Completed: 10/26/06

WorkOrder: 0610440

October 26, 2006

Dear Chris:

Enclosed are:

1). the results of **2** analyzed samples from your **#061019-WC-1 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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

BTSS #0610440

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 061019-WX-1

CLIENT: CKG Environmental

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

LAB: McCampbell | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION

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_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-17	10/19/06	0840	W	3	HCl		X	X	X	1 Liter Amber w/HCL			
MW-1	↓	1000	W	3	2 HCl voa 1 L glass		X	X	X	1 Liter glass - Non Pres.			

ICE/T° 2.4
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER

SAMPLING COMPLETED	DATE	TIME
	10/19/06	0900

SAMPLING PERFORMED BY: Will Crow

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Will Crow	10/19/06	1715	(sample custodian)	10/19/06	1715
	10/20/06	1505		10/20/06	1505
	10/20	6:30?			

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0610440 **ClientID: CKGS**

☐ EDF ☐ Fax ☐ Email ☐ HardCopy ☐ ThirdParty

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

Email: ckennedy@geologist.com
TEL: (707) 967-8022 FAX: (707) 967-8080
ProjectNo: #061019-WC-1
PO:

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

Requested TAT: **5 days**

Date Received: **10/20/2006**
Date Printed: **10/20/2006**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0610440-001	MW-17	Water	10/19/06 8:40:00	☐	A	C										
0610440-002	MW-1	Water	10/19/06 10:00:00	☐	A	C										

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)WSG_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Mark Robinson

Comments:

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.

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Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental	Client Project ID: #061019-WC-1	Date Sampled: 10/19/06
		Date Received: 10/20/06
808 Zinfandel Lane	Client Contact: Chris Kennedy	Date Extracted: 10/25/06-10/26/06
St. Helena, CA 94574	Client P.O.:	Date Analyzed: 10/25/06-10/26/06

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0610440

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-17	W	1600,g,m,h	---	5.9	ND<1.0	ND<1.0	3.7	2	109
002A	MW-1	W	120,g	---	ND	ND	ND	ND	1	103
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 McCampbell 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; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental	Client Project ID: #061019-WC-1	Date Sampled: 10/19/06
808 Zinfandel Lane		Date Received: 10/20/06
St. Helena, CA 94574	Client Contact: Chris Kennedy	Date Extracted: 10/20/06
	Client P.O.:	Date Analyzed: 10/21/06-10/23/06

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015C Work Order: 0610440

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0610440-001C	MW-17	W	1,100,000,a,h	480,000	200	---#
0610440-002C	MW-1	W	5400,a/m	3300	1	109

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; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell 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 (asphalt); 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; j) reporting limit raised due to matrix interference; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0610440

EPA Method SW8021B/8015Cm	Extraction SW5030B				BatchID: 24393			Spiked Sample ID: 0610416-004A			
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	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	99.4	105	5.52	100	88	12.9	70 - 130	30	70 - 130	30
MTBE	ND	10	113	112	0.990	105	103	1.84	70 - 130	30	70 - 130	30
Benzene	ND	10	93.4	98.9	5.75	103	87.7	15.7	70 - 130	30	70 - 130	30
Toluene	ND	10	79.9	92.1	14.1	93.8	73.6	24.1	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	98.3	98.5	0.196	90.1	78.2	14.2	70 - 130	30	70 - 130	30
Xylenes	ND	30	94.3	91	3.60	92.3	94.7	2.50	70 - 130	30	70 - 130	30
%SS:	115	10	99	98	1.14	97	98	2.02	70 - 130	30	70 - 130	30

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

NONE

BATCH 24393 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0610440-001	10/19/06 8:40 AM	10/25/06	10/25/06 2:43 PM	0610440-002	10/19/06 10:00 AM	10/26/06	10/26/06 7:48 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.

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

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0610440

EPA Method: SW8015C **Extraction: SW3510C/3630C** **BatchID: 24383** **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	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	101	103	1.31	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	115	117	1.35	N/A	N/A	70 - 130	30

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

NONE

BATCH 24383 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0610440-001	10/19/06 8:40 AM	10/20/06	10/23/06 2:29 PM	0610440-002	)/19/06 10:00 AM	10/20/06	10/21/06 5:32 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.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/18/06
		Date Received: 09/19/06
	Client Contact: Christina Kennedy	Date Reported: 09/26/06
	Client P.O.:	Date Completed: 09/26/06

WorkOrder: 0609372

September 26, 2006

Dear Christina:

Enclosed are:

1). the results of **1** analyzed sample from your **Owens Brockway Glass Plant project,**

2). a QC report for the above sample

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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

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 #

CLIENT CKG Environmental

SITE Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

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 S= SOIL W=H_2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPHg BTEX (8015/8021)	TPHd w/silica gel clean up	TPHm w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-19	9/18/06	1715	W	3		X	X	X				

ICE/t° _____
GOOD CONDITION _____ APPROPRIATE
HEAD SPACE ABSENT _____ CONTAINERS _____
DECHLORINATED IN LAB _____ PRESERVED IN LAB _____

PRESERVATION	VOAS	O&G	METALS	OTHER

SAMPLING COMPLETED	DATE	TIME
	9/18/06	1715

SAMPLING PERFORMED BY Sucheon Sung

RESULTS NEEDED NO LATER THAN Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	9/18/06	1805		9/18/06	1810
	9/19/06	945		9/19/06	945
	9/19/06	1720		9/19	1720

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0609372 **ClientID: CKGS** **EDF: NO**

Report to:
Christina Kennedy
CKG Environmental
808 Zinfandel Lane
St. Helena, CA 94574

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

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

Requested TAT: **5 days**

Date Received: **09/19/2006**
Date Printed: **09/26/2006**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0609372-001	MW-19	Water	09/18/2006	☐	A	B										

Test Legend:

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

Prepared by: Nickole White

Comments:

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.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/18/06
808 Zinfandel Lane		Date Received: 09/19/06
St. Helena, CA 94574	Client Contact: Christina Kennedy	Date Extracted: 09/23/06
	Client P.O.:	Date Analyzed: 09/23/06

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0609372

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-19	W	280,b	---	ND	ND	ND	0.83	1	112

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 McCampbell 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; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/18/06
		Date Received: 09/19/06
	Client Contact: Christina Kennedy	Date Extracted: 09/19/06
	Client P.O.:	Date Analyzed: 09/23/06

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

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0609372

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0609372-001B	MW-19	W	890,d,b	280	1	105

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 McCampbell 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.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0609372

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 23826** **Spiked Sample ID: 0609357-015A**

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	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	127	128	0.921	97.7	101	3.39	70 - 130	30	70 - 130	30
MTBE	ND	10	120	120	0	109	110	0.617	70 - 130	30	70 - 130	30
Benzene	ND	10	101	103	1.18	93.1	92.9	0.196	70 - 130	30	70 - 130	30
Toluene	ND	10	102	104	1.49	85.7	86.9	1.36	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	106	108	1.03	93.4	94.6	1.26	70 - 130	30	70 - 130	30
Xylenes	ND	30	120	120	0	86	89.7	4.17	70 - 130	30	70 - 130	30
%SS:	103	10	92	93	1.63	98	98	0	70 - 130	30	70 - 130	30

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

NONE

BATCH 23826 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0609372-001A	9/18/06 5:15 PM	9/23/06	9/23/06 6:11 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.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0609372

EPA Method SW8015C	Extraction SW3510C				BatchID: 23806			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	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	92.4	90	2.60	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	110	104	5.11	N/A	N/A	70 - 130	30

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

NONE

BATCH 23806 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0609372-001	9/18/06 5:15 PM	9/19/06	9/23/06 3:17 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.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/11/06
		Date Received: 09/13/06
	Client Contact: Chris Kennedy	Date Reported: 09/21/06
	Client P.O.:	Date Completed: 01/12/07

WorkOrder: 0609262

January 12, 2007

Dear Chris:

Enclosed are:

1). the results of **11** analyzed samples from your **Owens 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. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

ckgs 0609262 1 of 2 (a)

BLAINE
TECH SERVICES, INC

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

CHAIN OF CUSTODY BTS # 060911-SL1

CLIENT: CKG Environmental

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

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

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_2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-5	9/11/06	1230	W	3		X	X	X				
MW-6		1205	W	3		X	X	X				
MW-7		1140	W	3		X	X	X				
MW-8		1325	W	3		X	X	X				
MW-10		1300	W	3		X	X	X				
MW-13		1425	W	3		X	X	X				
MW-15		1345	W	3		X	X	X				
MW-16		1035	W	3		X	X	X				
MW-17		1100	W	3		X	X	X				
MW-20	↓	1010	W	3		X	X	X				

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
PRESERVATION: VOAS ✓ | O&G | METALS | OTHER

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	9/11/06	1600	S. Lane

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
S (illegible)	9/11/06	1745	(illegible) (Sample Custodian)	9/11/06	1750
(illegible)	9/13/06	1810	M. Roberts	9/13/06	1810
M. Roberts	9/13/06	2010	(illegible)	9/13/06	2010

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

2 of 2 (a)

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 060911-SL1

CLIENT: CKG Environmental

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

LAB: McCampbell | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION ___
☐ LIA
☐ OTHER

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 S= SOIL W=H_2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPHg / BTEX (8015/8021)	TPHd w/silica gel clean up	TPHmo w/silica gel clean up	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2	9/11/06	1530	W	3		X	X	X				

SAMPLING COMPLETED: DATE 9/11/06 TIME 1600
SAMPLING PERFORMED BY: S. LANE

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
S. Lane	9/11/06	1745	(Sample Custody)	9/11/06	1750
	9/13/06	1810	M. Kolbus	9/13/06	1810
M. Kolbus	9/13/06	240			

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0609262 **ClientID: CKGS** **EDF: NO**

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

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

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

Requested TAT: 5 days

Date Received: **09/13/2006**
Date Printed: **09/13/2006**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0609262-001	MW-5	Water	09/11/2006	☐	A	B										
0609262-002	MW-6	Water	09/11/2006	☐	A	B										
0609262-003	MW-7	Water	09/11/2006	☐	A	B										
0609262-004	MW-8	Water	09/11/2006	☐	A	B										
0609262-005	MW-10	Water	09/11/2006	☐	A	B										
0609262-006	MW-13	Water	09/11/2006	☐	A	B										
0609262-007	MW-15	Water	09/11/2006	☐	A	B										
0609262-008	MW-16	Water	09/11/2006	☐	A	B										
0609262-009	MW-17	Water	09/11/2006	☐	A	B										
0609262-010	MW-20	Water	09/11/2006	☐	A	B										
0609262-011	MW-2	Water	09/11/2006	☐	A	B										

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)WSG_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

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.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/11/06
808 Zinfandel Lane		Date Received: 09/13/06
St. Helena, CA 94574	Client Contact: Chris Kennedy	Date Extracted: 09/18/06-09/20/06
	Client P.O.:	Date Analyzed: 09/18/06-09/20/06

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0609262

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-5	W	300,g,h,i	---	ND	ND	ND	ND	1	89
002A	MW-6	W	700,g,h,i	---	ND	ND	ND	ND	1	104
003A	MW-7	W	6600,g,h,i	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	10	89
004A	MW-8	W	1200,b,m,i	---	ND	ND	ND	2.1	1	98
005A	MW-10	W	270,b,m	---	ND	ND	ND	0.81	1	97
006A	MW-13	W	ND,i	---	ND	ND	ND	ND	1	101
007A	MW-15	W	ND,i	---	ND	ND	ND	ND	1	96
008A	MW-16	W	ND,i	---	ND	ND	ND	ND	1	95
009A	MW-17	W	26,000,g,m,h	---	ND<2.5	36	9.5	79	5	86
010A	MW-20	W	ND	---	ND	ND	ND	ND	1	97
011A	MW-2	W	13,000,g,m,h,i	---	ND<2.5	4.4	19	60	5	103
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 McCampbell 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; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

CKG Environmental 808 Zinfandel Lane St. Helena, CA 94574	Client Project ID: Owens Brockway Glass Plant	Date Sampled: 09/11/06
		Date Received: 09/13/06
	Client Contact: Chris Kennedy	Date Extracted: 09/13/06
	Client P.O.:	Date Analyzed: 09/18/06-09/20/06

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015C Work Order: 0609262

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0609262-001B	MW-5	W	45,000,b,g,h,i	33,000	10	99
0609262-002B	MW-6	W	100,000,b,g,h,i	77,000	40	90
0609262-003B	MW-7	W	310,000,a/m,h,i	150,000	100	117
0609262-004B	MW-8	W	1800,d,g,b,i	760	1	114
0609262-005B	MW-10	W	3400,a,g	2600	1	115
0609262-006B	MW-13	W	ND,i	ND	1	91
0609262-007B	MW-15	W	56,b,i	ND	1	92
0609262-008B	MW-16	W	140,g,b,i	550	1	91
0609262-009B	MW-17	W	2,300,000,a,h	810,000	1000	---#
0609262-010B	MW-20	W	ND	ND	1	105
0609262-011B	MW-2	W	830,000,a,g,d,h,i	530,000	200	---#

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; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell 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 (asphalt); 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; j) reporting limit raised due to matrix interference; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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Angela Rydelius, Lab Manager

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"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0609262

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 23731 Spiked Sample ID: 0609262-008A

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	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	95.2	95.2	0	98.7	103	4.17	70 - 130	30	70 - 130	30
MTBE	ND	10	104	115	10.8	96.2	97.4	1.20	70 - 130	30	70 - 130	30
Benzene	ND	10	103	93.4	9.62	100	104	3.19	70 - 130	30	70 - 130	30
Toluene	ND	10	94.3	83	12.8	93.2	97.1	4.14	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	87.6	99.2	12.4	100	103	2.32	70 - 130	30	70 - 130	30
Xylenes	ND	30	88.3	95	7.27	95	95.3	0.350	70 - 130	30	70 - 130	30
%SS:	95	10	98	97	0.311	100	100	0	70 - 130	30	70 - 130	30

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

NONE

BATCH 23731 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0609262-001	9/11/06 12:30 PM	9/19/06	9/19/06 7:35 AM	0609262-002	9/11/06 12:05 PM	9/19/06	9/19/06 9:47 AM
0609262-003	9/11/06 11:40 AM	9/18/06	9/18/06 4:05 PM	0609262-004	9/11/06 1:25 PM	9/20/06	9/20/06 5:17 AM
0609262-005	9/11/06 1:00 PM	9/20/06	9/20/06 8:45 AM	0609262-006	9/11/06 2:25 PM	9/18/06	9/18/06 2:13 PM
0609262-007	9/11/06 1:45 PM	9/18/06	9/18/06 2:45 PM	0609262-008	9/11/06 10:35 AM	9/18/06	9/18/06 3:16 PM
0609262-009	9/11/06 11:00 AM	9/19/06	9/19/06 7:16 PM	0609262-010	9/11/06 10:10 AM	9/18/06	9/18/06 3:48 PM
0609262-011	9/11/06 3:30 PM	9/19/06	9/19/06 7:47 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.

£ 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0609262

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 23730** **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	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	103	107	3.91	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	107	109	1.51	N/A	N/A	70 - 130	30

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

NONE

BATCH 23730 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0609262-001	9/11/06 12:30 PM	9/13/06	9/19/06 11:19 PM	0609262-002	9/11/06 12:05 PM	9/13/06	9/20/06 2:37 PM
0609262-003	9/11/06 11:40 AM	9/13/06	9/20/06 5:25 PM	0609262-004	9/11/06 1:25 PM	9/13/06	9/18/06 3:37 PM
0609262-005	9/11/06 1:00 PM	9/13/06	9/18/06 4:46 PM	0609262-006	9/11/06 2:25 PM	9/13/06	9/18/06 5:56 PM
0609262-007	9/11/06 1:45 PM	9/13/06	9/18/06 7:05 PM	0609262-008	9/11/06 10:35 AM	9/13/06	9/19/06 10:09 PM
0609262-009	9/11/06 11:00 AM	9/13/06	9/20/06 2:37 PM	0609262-010	9/11/06 10:10 AM	9/13/06	9/20/06 12:27 AM
0609262-011	9/11/06 3:30 PM	9/13/06	9/20/06 5:25 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.

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QA/QC Officer