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FIRST QUARTER 2017 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT

OWENS-BROCKWAY
GLASS CONTAINER FACILITY
OAKLAND, CALIFORNIA

CKG Environmental, Inc.
P.O. Box 246
St. Helena, CA 94574

April 5, 2017

Ms. Kit Soo
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: **RO0000289**
FOURTH QUARTER 2016 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT,
OWENS-BROCKWAY GLASS CONTAINER FACILITY.
3600 ALAMEDA AVENUE, OAKLAND, CALIFORNIA.

Dear Ms. Soo:

Owens-Brockway Glass Container Corporation is pleased to submit the attached Fourth Quarter 2016 Groundwater Monitoring and Remediation Effectiveness Report for the above site.

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the State Water Resources Control Boards's GeoTracker website.

If you need further information, feel free to call me at (567) 336-8682.

Sincerely,

Mark Tussing.
Regional EHS Manager

A Report Prepared for:

Mr. Mark Tussing
Environmental Affairs
One Michael Owens Way
Perrysburg, OH 43551-2999

FIRST QUARTER 2017 GROUNDWATER MONITORING AND REMEDIATION EFFECTIVENESS REPORT

OWENS-BROCKWAY GLASS CONTAINER FACILITY, OAKLAND, CALIFORNIA

April 5, 2017

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 on the north side 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 closed glass manufacturing plant, warehouses, and offices.

Subsurface investigations to assess petroleum hydrocarbon releases from two underground fuel storage tank (UST) areas have been ongoing 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. In 1986 18 groundwater monitoring wells were installed. Since that time some of those wells had been destroyed and new ones added. As of November 2016, there are still 15 operating monitoring wells at the site.

Since 1986 a number of petroleum hydrocarbon recovery or remediation measures have been completed at the site. These include removing USTs, installing free product recovery wells, and excavating suspected source areas.

Property research conducted in May 2015 as part of a Phase I Environmental Site Assessment for the property revealed that prior to the glass manufacturing plant being constructed the property was occupied by an asphalt refinery. The refinery operations included a number of petroleum hydrocarbon storage vessels and equipment that likely contributed petroleum hydrocarbons to the subsurface. The overall remediation strategy for the site includes the installation and operation of a groundwater treatment biobarrier along the downgradient property boundary and targeted soil excavations to reduce potential exposure to impacted soil.

With the approval of the groundwater treatment biobarrier on September 4, 2014, the groundwater monitoring program was modified to add analysis for naphthalene, MTBE, lead

scavengers, inorganic constituents and heterotrophic plate counts in addition to petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes.

In late 2015 through early 2016 the groundwater treatment trench or “biobarrier” was installed along the southern property boundary. The biobarrier operates as a series of air sparging wells that introduce oxygen to the subsurface to promote natural biodegradation of petroleum hydrocarbons in groundwater as it migrates offsite to toward the Oakland Estuary. The biobarrier was started on July 20, 2016. Initially there were issues with the system producing too much heat which necessitating installing a heat exchanger. Since the heat exchanger was installed the system has been operating continuously with no problems. An engineering technician checks the system weekly and adjusts flow rates to each well if warranted based on individual well performance.

Groundwater monitoring is performed to evaluate the stability of petroleum hydrocarbons in the subsurface and to assess the effectiveness of remediation efforts. MTBE was not detected above laboratory reporting limits. Naphthalene and lead scavengers were not detected above laboratory reporting limits. Petroleum hydrocarbon concentrations in wells nearest the biobarrier have decreased then increased since the biobarrier started operating but this may be a function of fluctuating water levels. Increased heterotrophic plate counts suggest that oxygen added to the subsurface by the biobarrier is promoting bacterial growth.

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 first quarter 2017 groundwater monitoring and groundwater treatment trench (biobarrier) performance. The work was performed in general accordance with CKG's Groundwater Treatment Biobarrier Design dated August 13, 2014. Any deviations from the work plan are 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 closed glass manufacturing plant, warehouses, and offices, (Plate 2).

UST Areas

USTs were formerly located on the west side and central area of the plant and included three former fuel oil USTs, (on the west side) and four USTs that contained diesel and gasoline in the central area. An eighth UST formerly used to store lube oil was located immediately adjacent to the plant building between the two areas. Fuel releases were observed when the USTs were removed in the late 1980s. Owens-Brockway excavated impacted soil at the time the USTs were removed, and has excavated petroleum hydrocarbon impacted soil in 2011 and 2014.

Former Asphalt Refinery Area

In May 2015, a review of Sanborn Maps showed that a historic asphalt refinery occupied the Western UST Area in the early 20th century, prior to the glass plant being constructed. Subsequent subsurface investigations have shown that the majority of petroleum hydrocarbon impacts in soil and groundwater at the site are the result of releases from the former asphalt refinery. These impacts occur underneath the glass plant building and warehouse and extend all the way to the Oakland Estuary.

3.0 GROUNDWATER MONITORING

3.1 GROUNDWATER GRADIENT

Depth to groundwater measurements were made on February 9, 2017, 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 February 9, 2017 the groundwater flow direction is generally to the south-southwest. This groundwater flow direction has been observed in past monitoring events, although in this monitoring event the elevation closest to the estuary (MW-21) was higher than expected. This may have been the result of localized tidal influence. 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 February 9, 2017 a round of groundwater sampling in the monitoring wells was performed. No separate phase product or visible sheen was observed in the wells however small globules of separate phase petroleum hydrocarbons product were observed floating in the water from MW-5. Absorbent socks were deployed and replaced in MW-5, MW-6, MW-7 and MW-13. MW-1 could not be sampled because it was covered with equipment. MW-9 which was located in the middle of the loading ramp could not be located. It appeared that it may have been concreted over some years ago.

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 workplan dated August 13, 2014. 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;
- Benzene, Toluene, Ethylbenzene, Xylenes, Methyl-tert-butyl ether (MTBE), Naphthalene, 1, 2- Dichloroethane (1,2-DCA) and Ethylene dibromide (EDB) by EPA Method 8260B
- Nitrate, Nitrite and Sulfate by EPA Method 300.0
- Alkalinity (total and speciated) by EPA Method 310.1
- Heterotrophic Plate Count by Standard Method 9215.

3.5 INVESTIGATION DERIVED WASTES (IDW)

Investigation derived wastes (IDW) were generated during the investigation and included purge water. Purge water was placed into drums and left onsite pending proper disposal.

3.6 BIOBARRIER OPERATIONS AND MAINTENANCE

The biobarrier was started on July 20, 2016. After some initial issues with the system overheating, a heat exchanger was installed to mitigate the problem. The biobarrier has been operating continuously since the heat exchanger was installed. Part of the initial start-up activity was to evaluate the optimum flow rate for each well, then group wells according to flow rate so that they could be operated together. An engineering technician visits the site weekly to check the flow rate in each well and to assure that everything is operating properly or to affect repairs if necessary. A summary of observations made weekly from November 14, 2016 through March 3, 2017 is provided in Appendix C.

4.0 FINDINGS

The following describes the results of the first quarter 2017 groundwater monitoring and weekly biobarrier 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 Tables 3-5. Analytical laboratory reports are included in Appendix B. Sample locations and pertinent data are presented on Plate 3.

4.1 SUMMARY OF GROUNDWATER RESULTS

4.1.1 Petroleum Hydrocarbons (gasoline, diesel and motor oil)

Petroleum hydrocarbons quantified as gasoline were detected in five of the wells sampled. These include, MW-6 (140 µg/l), MW-7 (290 µg/l), MW-8 (200 µg/l), MW-17 (100 µg/l) and MW-19 (170 µg/l). These wells are highly impacted by petroleum hydrocarbons and the TPHg detected likely represents the lighter end of the diesel range of contaminants that are present rather than primary gasoline constituents.

Petroleum hydrocarbons quantified as diesel were detected in ten of the wells sampled. These include MW-2R (460 µg/l), MW-5 (6700 µg/l), MW-6 (23,000 µg/l), MW-7 (1900 µg/l), MW-10 (180 µg/l), MW-15 (670 µg/l), MW-17 (10,000 µg/l), MW-19 (110 µg/l), MW-20 (76 µg/l) and MW-21 (110 µg/l). In the fourth quarter of 2016 the TPHd in MW5, MW-6 and MW-7 was substantially lower than observed in the past, but in the first quarter 2017 the concentrations are much higher again. It should be noted that groundwater elevations were over two feet higher than measured in the last quarter. Petroleum hydrocarbons can be variable depending on groundwater elevations and the activity of air injection and subsurface microbes.

Petroleum hydrocarbons quantified as motor oil were detected in nine of the wells sampled. These include MW-2R (470 µg/l), MW-5 (7600 µg/l), MW-6 (21,000 µg/l), MW-7 (730 µg/l), MW-10 (570 µg/l), MW-15 (340 µg/l), MW-15 (1300 µg/l), MW-17 (5700 µg/l) and MW-24 (280 µg/l). As observed for TPHd the TPHmo is higher in some wells this quarter compared to last quarter but lower in others. Petroleum hydrocarbon data is summarized on Table 3.

4.1.2 Naphthalene MTBE and Lead Scavengers

Table 4 summarizes the results of analyses for naphthalene, MTBE and lead scavengers (1, 2-DCA and EDB). None of these constituents were detected above the laboratory reporting limit.

4.1.3 Inorganic Constituents and Heterotrophic Plate Counts

Inorganic constituents such as nitrate, nitrite, sulfate, and alkalinity are analyzed to assess the extent to which bacteria are utilizing oxygen to biodegrade petroleum hydrocarbons in the groundwater. Dissolved oxygen and Oxidation Reduction Potential (ORP) are also measured in the field to provide some information regarding oxygen availability and utilization in groundwater as well. Heterotrophic plate counts are measured to evaluate the activity of microbes in the groundwater that may be contributing to the biodegradation of the petroleum hydrocarbons. The results of these analyses are summarized on Table 5. Changes in inorganic constituents are observed but a clear pattern is not yet apparent. Heterotrophic plate counts are generally higher than observed in the past, particularly in the wells closer to the biobarrier. This increase suggests that the addition of oxygen to the subsurface is promoting bacterial growth. Ongoing groundwater monitoring should reveal additional trends associated with the addition of oxygen to the groundwater.

4.2 SUMMARY OF BIOBARRIER OPERATIONS & MAINTENANCE

The biobarrier has been operating continuously and without need for maintenance since the heat exchanger was installed after initial start-up on July 20. All wells are receiving steady airflows without problems.

5.0 CONCLUSIONS AND RECOMMENDATIONS

On the basis of the quarterly 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 over time. The petroleum hydrocarbon release on the west side of the site appears to extend off site.

The diesel release in the central part of the site has been attenuating.

The former gasoline release in the central part of the site has attenuated with no gasoline related constituents detected at MW-16.

Petroleum hydrocarbon concentrations in wells nearest the biobarrier have decreased then increased since the biobarrier started operating but this may be a function of fluctuating water levels. Increased heterotrophic plate counts suggest that oxygen added to the subsurface by the biobarrier is promoting bacterial growth.

The biobarrier is operating smoothly and all wells are receiving steady air flows.

5.2 RECOMMENDATIONS

CKG recommends that Owens-Brockway submit this report to the Alameda County Health Agency.

Groundwater monitoring will be continued to monitor the effectiveness of the groundwater treatment biobarrier.

6.0 REFERENCES

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

CKG Environmental, Inc. 2017, Fourth Quarter 2016 Groundwater Monitoring and Remediation Effectiveness Report, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, January 5, 2017

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CKG Environmental, Inc. 2016, Subsurface Investigation Report Former Fuel Storage and Historical Asphalt Refinery Operational Areas, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, March 4, 2016

CKG Environmental, Inc. Annual Groundwater Monitoring Reports,
2015 Report, December 14, 2016.
2014 Report, February 28, 2014.
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Work Plan for Additional Targeted Excavation and Subsurface Investigation, Former Fuel Storage and Historical Asphalt Refinery Operational Areas, Owens-Brockway Glass Container Facility, 3600 Alameda Avenue, Oakland, California, dated December 2, 2015.

CKG Environmental, Inc. 2014 Groundwater Treatment Biobarrier Design, Owens-Brockway Glass Container Facility, Oakland, California August 13, 2014.

CKG Environmental, Inc. 2014 Revised Corrective Action Plan Targeted Excavations and Groundwater Treatment Trench, Owens-Brockway Glass Container Facility, Oakland, California January 17, 2014.

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. 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.

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.

TABLES

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	Destroyed
MW-2R	11-Sep-15	18.17	18	5	23	2	
MW-3	12-Sep-86	15.46	10	20	39	2	Destroyed
MW-3R	11-Sep-15	17.18	17	5	22	2	
MW-4	12-Sep-86	16.02	8.5	20	28.5	2	Destroyed
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	
MW-21	11-Sep-15	16.2	15	15	39	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 February 9, 2017

Well Number	Date Installed	Top of Casing Elelvation[(a)]	Depth to Water	Product thickness (ft)*	Groundwater Elevation
MW-1	12-Sep-86	16.02	NA		NA
MW-2	12-Sep-86	17.11	Destroyed		
MW-2R	11-Sep-15	18.17	7.37		10.8
MW-3R	11-Sep-15	17.18	10.23		6.95
MW-4	12-Sep-86	NA	Destroyed		
MW-5	12-Sep-86	16.19	8.55		7.64
MW-6	12-Sep-86	17.48	9.62		7.86
MW-7	12-Sep-86	16.11	9.66		6.45
MW-8	12-Sep-86	16.57	6.57		10
MW-9	12-Sep-86	7.33[(d)]	Not measured, well cannot be located		
MW-10	12-Sep-86	15.96	9.36		6.6
MW-11	12-Sep-86	13.99	Destroyed		
MW-12	12-Sep-86	13.83	Destroyed		
MW-13	12-Sep-86	13.98	8.07		5.91
MW-14	12-Sep-86	NA	Destroyed		
MW-15	12-Sep-86	15.16	9.79		5.37
MW-16	12-Sep-86	13.48	6.8		6.68
MW-17	12-Sep-86	14.17	7.20		6.97
MW-19	01-May-03	NA	9.09		NA
MW-20	01-Dec-00	12.74	7.4		5.34
MW-21	11-Sep-15	16.20	9.32		6.88

(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

* In the case where separate phase product is measured, groundwater elevation is corrected assuming a oil with product density of 0.893

Table 3 Summary of Petroleum Hydrocarbon 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
	10/17/2007	not accessible						
	10/21/2008	<0.5	<0.5	<0.5	<0.5	2000	69	1300
	10/16/2009	<0.5	<0.5	<0.5	<0.5	310	<50	310
	10/29/2010	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	92	<50	<250
	3/22/2013	not accessible						
	1/24/2014	not accessible						
	10/1/2015					<50	<50	<250
	11/10/2016	not accessible						
	2/9/2017	not accessible						
MW-2	4/9/1987	floating product						
	9/16/1987	floating product						
	12/1/1987	floating product						
	3/7/1988	floating product						
	6/8/1988	floating product						
	9/14/1988	floating product						
	9/16/1997	floating product						
	11/2/1998	floating product						
	12/11/2001	floating product						
	12/6/2002	floating product						
	3/15/2004	floating product						
	6/30/2005	<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
	10/17/2007	floating product (1.25 feet)						
	10/21/2008	floating product						
	10/16/2009	floating product						
	10/29/2010	floating product (1.25 feet)						
	3/1/2012	Destroyed May 2011						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-2R	10/1/2015	floating product (0.05 feet)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	1500	130	1400
	2/9/2017	<0.5	<0.5	<0.5	<1.5	460	<50	470
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						
MW-3R	10/1/2015	<0.5	<0.5	<0.5	<0.5	71	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<50
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<50	<50	<250
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						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	34,000	120	31,000
	10/21/2008	<0.5	<0.5	<0.5	<0.5	13,000	150	11,000
	10/16/2009	<0.5	<0.5	<0.5	<0.5	160,000	180	140,000
	10/29/2010	floating product (0.04 ft)						
	3/1/2012	<0.5	<0.5	<0.5	<0.5	8,600	190	8,900
	3/22/2013	floating product (0.03 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	5,100	160	4,500
	10/1/2015	floating product (0.03 feet)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	940	94	590
	2/9/2017	<0.5	<0.5	<0.5	<1.5	6,700	<50	7,600

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<1	<1	<1	11.00	290,000	3400	190,000
	10/21/2008	<1	<1	<1	<1	38,000	330	28,000
	10/16/2009	<0.5	<0.5	<0.5	<0.5	98,000	490	89,000
	10/29/2010	floating product (0.05 ft)						
	3/1/2012	floating product (0.01 ft)						
	3/22/2013	floating product (0.02 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	87,000	230	73,000
	10/1/2015	floating product (0.02 ft)						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	13,000	260	11,000
	2/9/2017	<0.5	<0.5	<0.5	<1.5	23,000	140	21,000

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 - Ethylbenzene 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<1	<1	<1	2.70	330,000	1900	190,000
	10/21/2008	<1	<1	<1	<1	82,000	1100	43,000
	10/16/2009	<5	<5	<5	<5	60,000	2200	35,000
	10/29/2010	floating product (0.03 ft)						
	3/1/2012	floating product (0.01 ft)						
	3/22/2013	floating product (0.02 ft)						
	1/24/2014	<.05	<.05	0.052	1.6	130,000	650	82,000
	10/1/2015	not sampled, could not be located						
	11/10/2016	<0.5	<0.5	<0.5	<0.5	760	<50	720
	2/9/2017	<0.5	<0.5	<0.5	<1.5	1,900	290	730

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
MW-8	10/23/1986	<0.2	<0.2	NA	<1	NA	190	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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	1,300	390	2,100
	10/21/2008	<0.5	<0.5	<0.5	<0.5	380	74	470
	10/16/2009	<0.5	<0.5	<0.5	<0.5	340	280	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	84	150	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	410	560	600
	3/22/2013	<0.5	<0.5	<0.5	<0.5	570	420	310
	1/24/2014	<0.5	<0.5	<0.5	<0.5	110	82	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	120	190	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	150	210	340
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<100	200	<500

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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						
	10/17/2007	innaccessible						
	10/21/2008	innaccessible						
	10/16/2009	innaccessible						
	10/29/2010	innaccessible						
	3/1/2012	innaccessible						
	3/22/2013	innaccessible						
	1/24/2014	innaccessible						
	10/1/2015	innaccessible						
	From 11/16	could not be located						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	1700	140	1500
	10/21/2008	<0.5	<0.5	<0.5	<0.5	2300	240	1500
	10/16/2009	<0.5	<0.5	<0.5	<0.5	4700	110	4600
	10/29/2010	<0.5	<0.5	<0.5	<0.5	640	190	530
	3/1/2012	<0.5	<0.5	<0.5	<0.5	2000	140	2400
	3/22/2013	<0.5	<0.5	<0.5	<0.5	3100	150	3200
	1/24/2014	<0.5	<0.5	<0.5	0.91	1100	290	830
	10/1/2015	<0.5	<0.5	<0.5	<0.5	320	220	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	310	140	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	180	<50	570
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						
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						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l — B - Benzene in ug/l — X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l — T - Toluene in ug/l — E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l — 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/22/2013	<0.5	<0.5	<0.5	<0.5	88	<50	<250
	1/24/2014	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	<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 - Ethylbenzene 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	55	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	100	<50	<250
	3/22/2013	floating product (0.01 ft)						
	1/24/2014	<0.5	<0.5	<0.5	<0.5	65	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	67	<50	340

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	92	<50	290
	10/21/2008	<0.5	<0.5	<0.5	<0.5	76	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	780	<50	910
	10/29/2010	<0.5	<0.5	<0.5	<0.5	390	<50	1500
	3/1/2012	<0.5	<0.5	<0.5	<0.5	270	<50	1600
	3/22/2013	<0.5	<0.5	<0.5	<0.5	220	<50	1700
	1/24/2014	<0.5	<0.5	<0.5	<0.5	120	<50	990
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	83	<50	1300

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l
B - Benzene in ug/l
X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l
T - Toluene in ug/l
E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l
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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<2.5	<2.5	<2.5	<2.5	710,000	4,400	270,000
	10/21/2008	<2.5	<2.5	<2.5	<2.5	330,000	3,300	130,000
	10/16/2009	<1.0	2.9	<1.0	<1.0	900,000	2,400	350,000
	10/29/2010	<5.0	5.0	0.92	12	610,000	5,000	360,000
	3/1/2012	<5.0	<5.0	<5.0	<5.0	390,000	3,000	160,000
	3/22/2013	8.2	1.4	<5.0	4.1	570,000	4,500	220,000
	1/24/2014	<5.0	<5.0	<5.0	<5.0	59,000	370	32,000
	10/1/2015	<5.0	<5.0	<5.0	0.52	51,000	460	27,000
	11/10/2016	<0.5	<0.5	<0.5	<0.5	910,000	530	360,000
	2/9/2017	<0.5	<0.5	<0.5	<1.5	10,000	100	5,700
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						

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes in ug/l

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l 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 Petroleum Hydrocarbon Analytical Results
Owens-Brockway Glass Container Facility, Oakland, CA

	Date	B	T	E	X	TPHd	TPHg	TOG/TPHmo
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
	10/17/2007	<0.5	<0.5	<0.5	0.61	1200	880	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	300	340	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	440	390	<250
	10/29/2010	<0.5	<0.5	<0.5	0.95	460	670	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	440	310	<250
	3/22/2013	<0.5	<0.5	<0.5	1.1	780	620	<250
	1/24/2014	<0.5	<0.5	<0.5	0.82	490	380	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	430	170	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	900	330	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	110	170	<250
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
	10/17/2007	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/21/2008	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/16/2009	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/29/2010	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/1/2012	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	3/22/2013	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	1/24/2014	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	76	<50	<250
MW-21	10/1/2015	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	11/10/2016	<0.5	<0.5	<0.5	<0.5	<50	<50	<250
	2/9/2017	<0.5	<0.5	<0.5	<1.5	110	<50	280

NOTES:

TPH-g - Total Petroleum Hydrocarbons as Gasoline in ug/l B - Benzene in ug/l X - Xylenes i

TPH-d - Total Petroleum Hydrocarbons as Diesel in ug/l T - Toluene in ug/l E - Ethylbenzene in ug/l

TOG - Total Oil and Grease in ug/l 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 4 Summary of MTBE, Naphthalene and Lead Scavenger Results

Well Number	Date Sampled	EDB (ug/l)	1,2,DCA (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)
MW-1	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	Innaccessible			
MW-2R	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-3R	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-5	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-6	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-7	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-8	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-9	01-Oct-15	Innaccessible			
	From 11/16	Could not be located			
MW-10	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-13	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-15	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-16	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5

Table 4 Summary of MTBE, Naphthalene and Lead Scavenger Results

MW-17	01-Oct-15	<0.5	<0.5	**5.8**	<0.5
	10-Nov-16	<0.5	<0.5	**3.7**	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-19	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	**6.7**
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-20	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5
MW-21	1-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
	9-Feb-17	<0.5	<0.5	<0.5	<0.5

EDB = Ethylene dibromide
1,2,-DCA = !,2 Dichloroethane
MTBE = Methyl-ter-butyl ether
ug/l = micrograms per liter

Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Heterotrophic Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
MW-1	01-Oct-15	3	<0.1	41	248	<1	248	<1	1,800	0.81	185
	10-Nov-16	Could not be sampled because it was inaccessible									
	9-Feb-17	Could not be sampled because it was inaccessible									
MW-2R	01-Oct-15	Floating product, not sampled									
	10-Nov-16	0.8	2.3	41	604	124	<5	480	<1		
	9-Feb-17	<0.1	1.1	65	1090	308	<10	784	3.00	1.27	-112.30
MW-3R	01-Oct-15	<0.1	<0.1	130	581	<1	581	<1	19,000	1.00	170
	10-Nov-16	0.11	<0.1	84	867	<1	480	<1	7,100	NA	NA
	9-Feb-17	0.49	<0.1	130	655	<1	655	<1	22,000	0.23	-11
MW-5	01-Oct-15	Floating product, not sampled									
	10-Nov-16	0.11	0.2	8.2	646	<1	646	<1	210	NA	NA
	9-Feb-17	2.5	<0.1	43	728	<1	728	<1	4,100	0.92	-86.00
MW-6	01-Oct-15	Floating product, not sampled									
	10-Nov-16	<0.1	<0.1	150	356	<1	356	<1	23,000	NA	NA
	9-Feb-17	<0.1	<0.1	120	333	<1	333	<1	110,000	2.34	64.00
MW-7	01-Oct-15	Could not locate									
	10-Nov-16	<0.1	<0.1	500	237	<1	237	<1	4,400	NA	NA
	9-Feb-17	<0.1	<0.1	580	579	<1	579	<1	38,000	1.37	-36.00
MW-8	01-Oct-15	2.9	<0.1	100	404	<1	404	<1	350	0.45	141
	10-Nov-16	3.7	0.23	100	460	<1	460	<1	680	NA	NA
	9-Feb-17	4.7	0.13	100	384	<1	384	<1	670	1.47	-17
MW-9	01-Oct-15	Inaccessible									
	From 11/16	Could not be located									
MW-10	01-Oct-15	<0.1	<0.1	0.53	576	<1	576	<1	2,800	0.35	180
	10-Nov-16	<0.1	<0.1	0.22	763	<1	763	<1	1,100	NA	NA
	9-Feb-17	<0.1	<0.1	5.7	326	<1	326	<1	20,000	2.46	87.2
MW-13	01-Oct-15	25	<0.1	39	381	<1	381	<1	1,400	1.10	80
	10-Nov-16	0.96	0.16	62	474	<1	474	<1	2,000	NA	NA
	9-Feb-17	0.24	<0.1	6.4	153	<1	153	<1	24,000	0.48	207

Notes:
mg/l = milligrams per liter
DO = Dissolved Oxygen
mV = millivolts
CFU/ml = Colony forming unit/milliliter
ORC = Oxidation Reduction Potential

Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Heterotrophic Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
MW-15	01-Oct-15	4.3	<0.1	96	522	<1	522	<1	8	2.29	95
	10-Nov-16	1.8	<0.1	140	833	<1	833	<1	1,200	NA	NA
	9-Feb-17	0.24	<0.1	280	738	<1	738	<1	9,600	0.61	104
MW-16	01-Oct-15	0.27	<0.1	49	253	<1	253	<1	900	0.35	-31
	10-Nov-16	0.92	0.13	57	320	<1	320	<1	2,200	NA	NA
	9-Feb-17	<0.1	<0.1	1.0	31.9	<1	31.9	<1	21,000	0.54	245
MW-17	01-Oct-15	0.13	<0.1	6.6	422	<1	422	<1	210	0.28	72
	10-Nov-16	0.18	<0.1	5.1	503	<1	503	<1	320	NA	NA
	9-Feb-17	<0.1	<0.1	6.3	165	<1	165	<1	34,000	0.81	-43
MW-19	01-Oct-15	<0.1	<0.1	1.2	476	<1	476	<1	950	0.60	-101
	10-Nov-16	<0.1	<0.1	0.18	544	<1	544	<1	160	NA	NA
	9-Feb-17	0.73	<0.1	53	742	<1	742	<1	8,500	0.28	270
MW-20	01-Oct-15	1.3	<0.1	56	296	<1	296	<1	350	1.20	20
	10-Nov-16	0.91	<0.1	57	393	<1	393	<1	96	NA	NA
	9-Feb-17	0.64	<0.1	28	113	<1	113	<1	15,000	0.47	270
MW-21	01-Oct-15	3.8	0.27	160	626	<1	626	<1	21,000	0.78	1
	10-Nov-16	5.5	0.24	130	792	<1	792	<1	1,800	NA	NA
	9-Feb-17	4.7	0.78	160	930	<1	930	<1	110,000	0.63	113

Notes:

mg/l = milligrams per liter

DO = Dissolved Oxygen

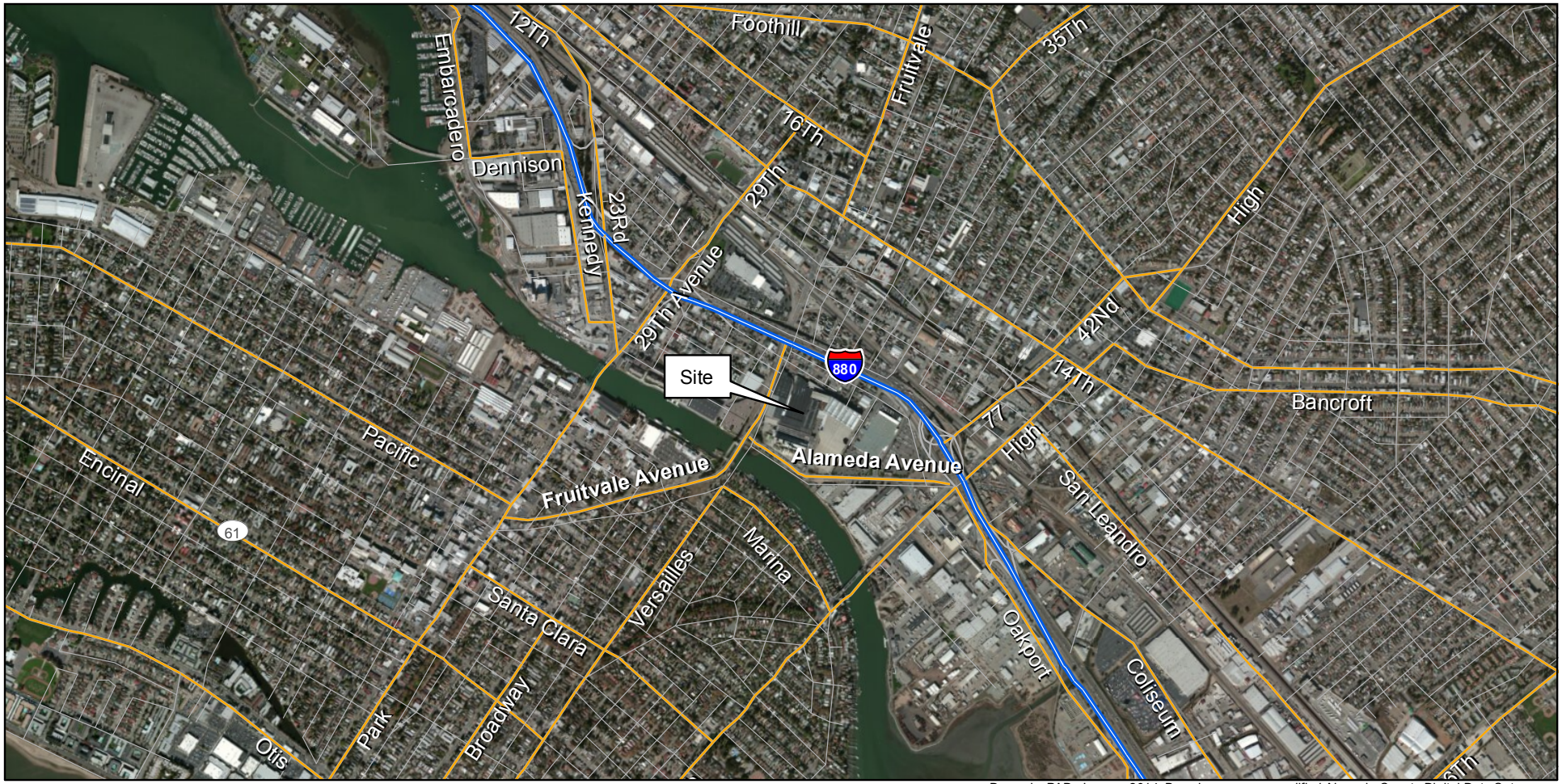
mV = millivolts

CFU/ml = Colony forming unit/milliliter

ORC = Oxidation Reduction Potential

NA = Not available

PLATES



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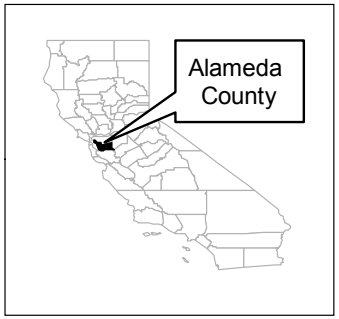


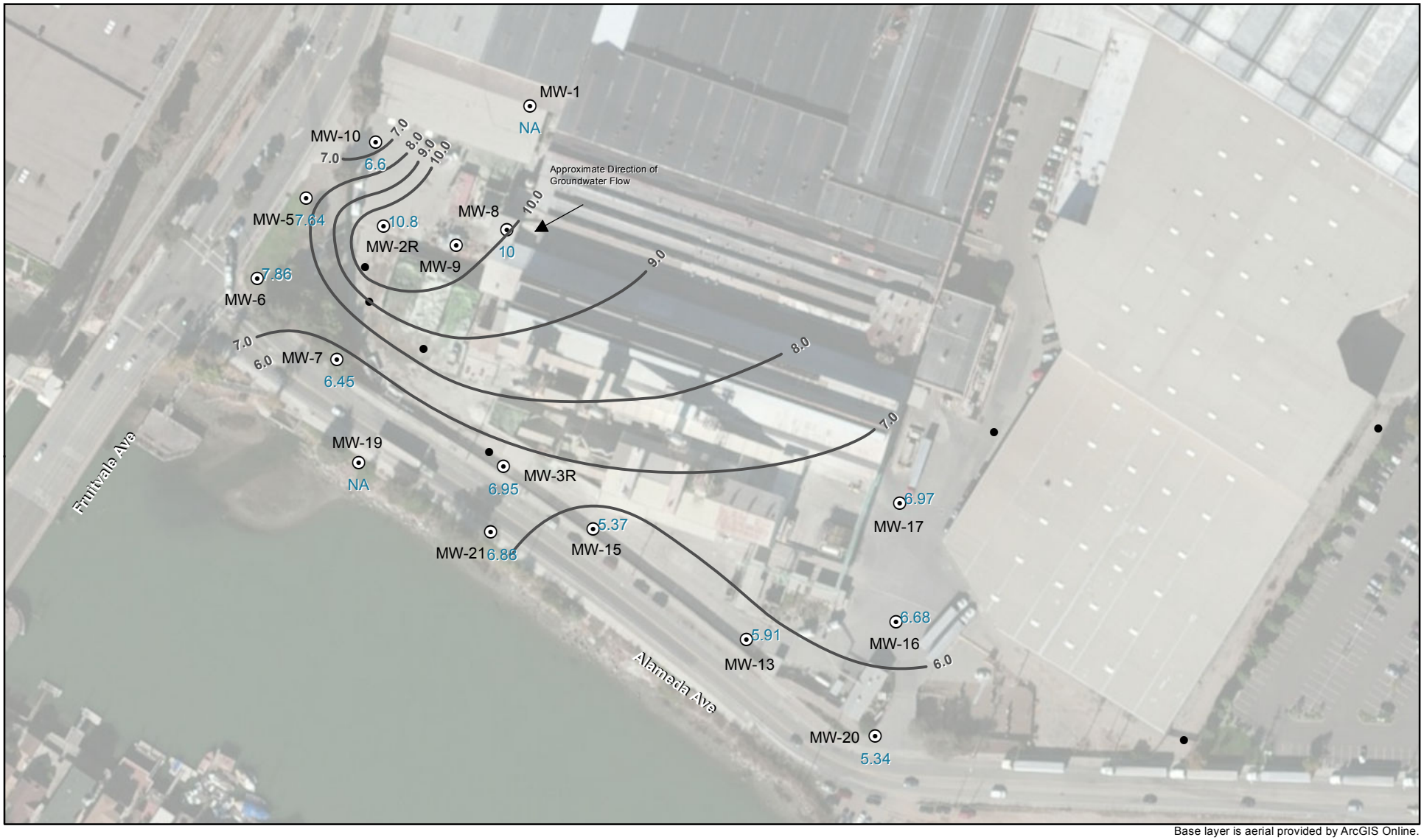
0 1,000 2,000

Scale in Feet

CKG Environmental, Inc.

Site Location Map
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland, California

PLATE
1



EXPLANATION

- Lines of Equal Groundwater Elevation
- Monitoring Well
- Destroyed Well
- 3.57 Groundwater Elevation
- NA Not Available
- NM Not Measured

0 75 150

Scale in Feet

CKG Environmental, Inc.

Groundwater Elevation Contour Map, February 9, 2017
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland California

PLATE
2

Drawn by PAD April 2017. Base layer is aerial provided by ArcGIS Online.

EXPLANATION

- Monitoring Well
- Destroyed Well
- OBOaklandWellsforJoin
- Line of Equal Concentration
- Dashed where approximate

490 TPHd Concentration ug/L

NA Not Available

0 75 150

Scale in Feet

CKG Environmental, Inc.

Fuel Oil/Diesel Contour Map, February 9, 2017
Owens-Brockway Glass Container Facility
3600 Alameda Avenue, Oakland California

PLATE 3

APPENDIX A

WELL GAUGING DATA

Project # 170409-141 Date 2-9-17 Client CLSG

Site 3600 Alameda Ave. Oakland CA

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-2R	0848	2					7.37	22.61		
MW-3R	0855	2					10.23	21.75		
MW-1	—	2	unable to locate							
MW-5	0915	2					8.55	22.87		sock
MW-6	0918	2					9.62	22.96		sock
MW-7	0925	2					9.66	16.91		sock
MW-8	0840	2					6.57	23.76		
MW-9	—	2	unable to	locate						
MW-10	0845	2					5.36	19.19		
MW-13	0905	2					8.00	18.25		sock
MW-15	0910	2					9.79	28.90		
MW-16	0850	2					6.80	19.30		
MW-17	0848	2					7.20	15.95		
MW-19	0855	2					9.09	25.05		
MW-20	0900	2					7.40	21.90		
MW-24	0845	2					9.32	28.35		

ELL MONITORING DATA SHEET

Project #: ~~XX~~ 170209-KK1	Client: CKG
Sampler: Colin Rowland	Date: 2/9/17
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 22.61	Depth to Water (DTW): 7.37
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]: 10.42	

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
2.4	(Gals.) X	3	=	7.2 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
1103	18.4	11.88	2432	19	2.4	clear
1107	18.7	11.92	2394	16	4.8	↓
1112	18.8	11.94	2423	8	7.2	↓

Did well dewater? Yes (No) Gallons actually evacuated: 7.2

Sampling Date: 2/9/17 Sampling Time: 1300 Depth to Water: 7.43

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other McCampbell

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

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:	1.27 mg/L
O.R.P. (if req'd):	Pre-purge:	—	mV	Post-purge:	-112.3 mV

ELL MONITORING DATA SHEET

Project #: 170209-KM1	Client:
Sampler: DH	Date: 2/9/17
Well I.D.: MW-3R	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): 21.75	Depth to Water (DTW): 10.23
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]:	

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
1111	19.2	7.44	1641	>1000	1.8	brown
1115	18.7	7.32	1037	>1000	3.6	brown
1120	19.1	7.11	1631	>1000	5.4	brown

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

Sampling Date: 2/9/17 Sampling Time: 1315 Depth to Water: 10.23

Sample I.D.: MW-3R Laboratory: Kiff CalScience Other McCampbell

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

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:	0.23 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	-11 mV

ELL MONITORING DATA SHEET

Project #: 170209-KK1	Client: CLG
Sampler: KK	Date: 2-9-17
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): ~~5.~~ ~~5.55~~ 22.53	Depth to Water (DTW): ~~22.53~~ 8.55
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: ____

2.25 (Gals.) X	3 =	6.75 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
0957	59.1	6.42	1502	7/000	2.25	brown
1001	60.1	6.97	1391	~~7/000~~	4.50	↓
1005	60.9	7.13	1319	7/000	6.75	↓
	Int probe did not detect		silt but	globules of	silt	
		in bailer				

Did well dewater? Yes (No) Gallons actually evacuated: 6.75

Sampling Date: 2-9-17 Sampling Time: 1245 Depth to Water: 8.91

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

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

~~EB~~ I.D. (if applicable): Trip blank TB-1 @ 0830 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:	0.92 mg/L
O.R.P. (if req'd):	Pre-purge:	—	mV	Post-purge:	-86 mV

ELL MONITORING DATA SHEET

Project #: 702609-1511	Client: C/G
Sampler: IS/C	Date: 2-9-17
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 22.96	Depth to Water (DTW): 9.62
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: _____

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	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1028	64.8	7.77	1001	71000	2.0	brown
1036	65.1	7.48	972	71000	4.0	↓
1048	64.9	7.47	968	71000	6.0	
1100	64.2	7.41	957	71000	8.0	
	pre-purge pH sheen					

Did well dewater? Yes (No) Gallons actually evacuated: 8.0

Sampling Date: 2-9-17 Sampling Time: 1300 Depth to Water: 9.72

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

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

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:	2.34	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	64	mV

ELL MONITORING DATA SHEET

Project #: 176209-1001	Client: CGG
Sampler: ICH	Date: 2-9-17
Well I.D.: MW-7	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): 16,91	Depth to Water (DTW): 9,66
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 (1st)
Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other_____

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

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

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1111	68.3	7.67	9.14	7/1000	1	brown
1117	67.8	7.76	9.86	7/1000	2	"
1123	67.3	7.83	3/97	7/1000	3	"

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

Sampling Date: 2-9-17 Sampling Time: 1220 Depth to Water: 9.80

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other See COC

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

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:	1.37 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-36 mV

ELL MONITORING DATA SHEET

Project #: 170209-144	Client: UCB
Sampler: DH	Date: 2/9/17
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 23.76	Depth to Water (DTW): 6.57
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:_____

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
1133	16.0	6.98	2077	>1000	2.8	
1138	16.5	7.10	1835	>1000	5.6	
1141	16.6	7.12	1789	>1000	8.4	

Did well dewater? Yes (No) Gallons actually evacuated: 8.4

Sampling Date: 2/9/17 Sampling Time: 1135 Depth to Water:

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

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

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:	1.47	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-17	mV

ELL MONITORING DATA SHEET

Project #: 170209-KK1	Client: CKG
Sampler: Colin Rowland	Date: 2/9/19
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.19	Depth to Water (DTW): 5.36
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]: 8.13	

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: ___

2.2 (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	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1037	16.4	7.34	933	>1000	2.2	light brown
1042	16.2	7.29	604	>1000	4.4	↓
1046	16.1	7.26	526	>1000	6.6	↓

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

Sampling Date: 2/9/17 Sampling Time: 1240 Depth to Water:

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

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

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:	2.46 mg/L	
O.R.P. (if req'd):	Pre-purge:	— mV	Post-purge:	87.2 mV	

ELL MONITORING DATA SHEET

Project #: 170207-D81	Client: CKG Env.
Sampler: DS	Date: 2-9-17
Well I.D.: MW-13	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 18.25	Depth to Water (DTW): 8.00
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]: 10.05	

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: _____

1.60 (Gals.) X 3 = 4.80 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
1012	62.6	7.34	1093	162	1.6	Cloudy
1014	62.7	7.32	1090	218	3.2	light brown
1017	62.7	7.31	1084	242	4.8	↓

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

Sampling Date: 2-9-17 Sampling Time: 1300 Depth to Water: 8.21

Sample I.D.: MW13 Laboratory: Kiff CalScience Other_____

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

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:	0.48	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	207	mV

ELL MONITORING DATA SHEET

Project #: 170209-KKL	Client: CKG env.
Sampler: DS	Date: 2-9-17
Well I.D.: MW-15	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 29.00	Depth to Water (DTW): 9.85
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]: 13.72	

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: ____

3.0 (Gals.) X 3 = 9.0 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
0950	65.3	6.97	2781	>1000	3	Dark brown
0954	65.7	6.92	2746	>1000	6	↓
0958	65.8	6.86	2739	>1000	9	↓

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 2-9-17 Sampling Time: 1330 Depth to Water: 10.02

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

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

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:	0.61 mg/L	
O.R.P. (if req'd):	Pre-purge:	— mV	Post-purge:	184 mV	

ELL MONITORING DATA SHEET

Project #: 170209-~~DS~~ KK	Client: CKG env
Sampler: DS	Date: 2-9-17
Well I.D.: MW-16	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): ~~6.80~~ 19.30	Depth to Water (DTW): ~~19.30~~ 6.80
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]: 9.20	

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	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1035	61.5	8.12	219	>1000	2	Dark brown
1038	61.7	8.01	240	>1000	4	↓
1043	61.8	7.93	248	>1000	6	↓

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

Sampling Date: 2-9-17 Sampling Time: ~~1250~~ 1350 Depth to Water: 7.94

Sample I.D.: MW-16 Laboratory: Kiff CalScience Other_____

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

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:	0.54 mg/L	
O.R.P. (if req'd):	Pre-purge:	— mV	Post-purge:	245 mV	

ELL MONITORING DATA SHEET

Project #: 170207-KK1	Client: CKG Env.
Sampler: DS	Date: 2-9-17
Well I.D.: MW-17	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 15.95	Depth to Water (DTW): 7.20
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]: 9.95	

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: _____

1.4 (Gals.) X	3	=	4.2 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
1116	62.2	7.04	541	260	1.4	Cloudy
1118	62.6	7.01	552	410	2.8	↓
1120	62.8	6.96	560	516	4.2	↓

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

Sampling Date: 2-9-17 Sampling Time: 1230 Depth to Water: 9.26

Sample I.D.: MW-17 Laboratory: Kiff CalScience Other_____

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

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:	0.51 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-43 mV

ELL MONITORING DATA SHEET

Project #: 170209-KE1	Client:
Sampler: DH	Date: 2/9/17
Well I.D.: MW-19	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 25.05	Depth to Water (DTW): 9.09
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:_____

2.6 (Gals.) X 3 = 7.8 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
1006	16.8	6.70	1968	292	2.6	
1012	16.4	6.77	1950	263	5.2	
1018	16.1	6.83	1942	224	7.8	

Did well dewater? Yes (No) Gallons actually evacuated: 8

Sampling Date: 2/9/17 Sampling Time: Depth to Water: 9.18

Sample I.D.: MW-19 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:	0.78 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	228 mV

ELL MONITORING DATA SHEET

Project #: 170209-KK1	Client: CUE Env.
Sampler: DS	Date: 2-9-17
Well I.D.: MW-20	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 21.90	Depth to Water (DTW): 7.40
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]: 10.30	

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: _____

2.30 (Gals.) X 3 = 6.90 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
1055	61.2	7.40	637	160	2.30	cloudy
1058	61.6	7.42	642	122	4.60	↓
1102	61.8	7.45	648	114	6.90	↓

Did well dewater? Yes (No) Gallons actually evacuated: 6.90

Sampling Date: 2-9-17 Sampling Time: 1210 Depth to Water: 8.19

Sample I.D.: MW-20 Laboratory: Kiff CalScience Other_____

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

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:	0.47	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	270	mV

ELL MONITORING DATA SHEET

Project #: 170209-KK1	Client:
Sampler: DH	Date: 2/9/17
Well I.D.: MW-21	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 28.85	Depth to Water (DTW): 9.32
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: ____

3.1 (Gals.) X 3 = 9.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1035	17.1	6.81	1688	308	3.1	
1039	17.0	6.74	1704	299	6.2	
1043	17.4	6.66	1717	291	9.3	

Did well dewater? Yes (No) Gallons actually evacuated: 9.3

Sampling Date: 2/9/17 Sampling Time: 1225 Depth to Water: 9.32

Sample I.D.: MW-21 Laboratory: Kiff CalScience Other McCampbell

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

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:	.63 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	113 mV

WELLHEAD INSPECTION CHECKLIST

Client CLSG Env Date 2-9-17

Site Address 360 Alameda Ave Oakland CA

Job Number 170209-1SK1 Technician SLS

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1		unable to locate						
MW-2R	X							
MW-3R	X							
MW-5								
MW-6		water bailed from box						
MW-7	X							
MW-8		1/2 bolts stripped						
MW-9		unable to locate						
MW-10		lid broken						
MW-13		lid broken						
MW-15		2/2 bolts missing						
MW-16		2/2 bolts missing						
MW-17		well box broken						
MW-19	X							
MW-20		2/2 bolts missing						
MW-21	X							

NOTES:

SPH or Purge Water Drum Log

Client: CKA

Site Address: Owens Oakland

STATUS OF DRUM(S) UPON ARRIVAL						
Date	2-9-17					
Number of drum(s) empty:	0					
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:						
Total drum(s) on site:	0					
Are the drum(s) properly labeled?	—					
Drum ID & Contents:	—					
If any drum(s) are partially or totally filled, what is the first use date:						

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	2-9-17					
Number of drums empty:	0					
Number of drum(s) 1/4 full:	0					
Number of drum(s) 1/2 full:	1					
Number of drum(s) 3/4 full:	0					
Number of drum(s) full:	1					
Total drum(s) on site:	2					
Are the drum(s) properly labeled?	Y					
Drum ID & Contents:	purge H_2O					

LOCATION OF DRUM(S)
Describe location of drum(s): inside Warehouse 4/

FINAL STATUS						
Number of new drum(s) left on site this event	2					
Date of inspection:	2-9-17					
Drum(s) labelled properly:	Yes					
Logged by BTS Field Tech:	JSK					
Office reviewed by:						

APPENDIX B

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 1702545

Report Created for: CKG Environmental

P.O. Box 246
St. Helena, CA 94574

Project Contact: Christina Kennedy
Project P.O.:
Project Name: Owens Brockway Glass Plant

Project Received: 02/09/2017

Analytical Report reviewed & approved for release on 02/15/2017 by:

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: Owens Brockway Glass Plant
WorkOrder: 1702545

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: Owens Brockway Glass Plant
WorkOrder: 1702545

Analytical Qualifiers

S	surrogate spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
b1	aqueous sample that contains greater than ~1 vol. % sediment
b6	lighter than water immiscible sheen/product is present
c2	surrogate recovery outside of the control limits due to matrix interference.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
e2	diesel range compounds are significant; no recognizable pattern
e3	aged diesel is significant
e4/e11	gasoline range compounds are significant.; and/or stoddard solvent/mineral spirit (?)
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
e11	stoddard solvent/mineral spirit (?)

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F2	LCS/LCSD recovery and/or RPD is out of acceptance criteria.

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001C**	**Water**	**02/09/2017 13:00**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/09/2017 22:04
Nitrate as $NO3^{-}$	ND	0.45	1	02/09/2017 22:04
Nitrite as N	**1.1**	0.10	1	02/09/2017 22:04
Nitrite as $NO2^{-}$	**3.5**	0.33	1	02/09/2017 22:04
Nitrate & Nitrite as N	**1.1**	0.10	1	02/09/2017 22:04
Sulfate	**65**	2.0	20	02/10/2017 08:26

Surrogates	REC (%)	Qualifiers	Limits	
Formate	116	S	85-115	02/09/2017 22:04

Analyst(s): AO Analytical Comments: c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002C**	**Water**	**02/09/2017 13:15**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.49**	0.10	1	02/09/2017 22:43
Nitrate as $NO3^{-}$	**2.2**	0.45	1	02/09/2017 22:43
Nitrite as N	ND	0.10	1	02/09/2017 22:43
Nitrite as $NO2^{-}$	ND	0.33	1	02/09/2017 22:43
Nitrate & Nitrite as N	**0.49**	0.10	1	02/09/2017 22:43
Sulfate	**130**	40	400	02/09/2017 21:42

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/09/2017 22:43

Analyst(s): AO

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003C**	**Water**	**02/09/2017 12:45**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**2.5**	0.10	1	02/09/2017 23:22
Nitrate as $NO3^{-}$	**11**	0.45	1	02/09/2017 23:22
Nitrite as N	ND	0.10	1	02/09/2017 23:22
Nitrite as $NO2^{-}$	ND	0.33	1	02/09/2017 23:22
Nitrate & Nitrite as N	**2.5**	0.10	1	02/09/2017 23:22
Sulfate	**43**	2.0	20	02/10/2017 09:44

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/09/2017 23:22

Analyst(s): AO Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004C**	**Water**	**02/09/2017 13:00**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/10/2017 00:01
Nitrate as $NO3^{-}$	ND	0.45	1	02/10/2017 00:01
Nitrite as N	ND	0.10	1	02/10/2017 00:01
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 00:01
Nitrate & Nitrite as N	ND	0.10	1	02/10/2017 00:01
Sulfate	**120**	40	400	02/09/2017 23:02

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 00:01

Analyst(s): AO Analytical Comments: b1

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1702545-005C**	**Water**	**02/09/2017 12:20**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/10/2017 00:39
Nitrate as $NO3^{-}$	ND	0.45	1	02/10/2017 00:39
Nitrite as N	ND	0.10	1	02/10/2017 00:39
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 00:39
Nitrate & Nitrite as N	ND	0.10	1	02/10/2017 00:39
Sulfate	**580**	40	400	02/09/2017 23:42

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 00:39

Analyst(s): AO Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1702545-006C**	**Water**	**02/09/2017 13:35**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**4.7**	0.10	1	02/10/2017 01:18
Nitrate as $NO3^{-}$	**21**	0.45	1	02/10/2017 01:18
Nitrite as N	**0.13**	0.10	1	02/10/2017 01:18
Nitrite as $NO2^{-}$	**0.41**	0.33	1	02/10/2017 01:18
Nitrate & Nitrite as N	**4.8**	0.10	1	02/10/2017 01:18
Sulfate	**100**	40	400	02/10/2017 00:22

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 01:18

Analyst(s): AO

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1702545-007C**	**Water**	**02/09/2017 12:40**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/10/2017 01:57
Nitrate as $NO3^{-}$	ND	0.45	1	02/10/2017 01:57
Nitrite as N	ND	0.10	1	02/10/2017 01:57
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 01:57
Nitrate & Nitrite as N	ND	0.10	1	02/10/2017 01:57
Sulfate	**5.7**	2.0	20	02/10/2017 13:38

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/10/2017 01:57

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008C**	**Water**	**02/09/2017 13:00**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.24**	0.10	1	02/10/2017 02:36
Nitrate as $NO3^{-}$	**1.1**	0.45	1	02/10/2017 02:36
Nitrite as N	ND	0.10	1	02/10/2017 02:36
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 02:36
Nitrate & Nitrite as N	**0.24**	0.10	1	02/10/2017 02:36
Sulfate	**6.4**	2.0	20	02/10/2017 14:16

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 02:36

Analyst(s): AO

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009C**	**Water**	**02/09/2017 13:30**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.24**	0.10	1	02/10/2017 04:33
Nitrate as $NO3^{-}$	**1.1**	0.45	1	02/10/2017 04:33
Nitrite as N	ND	0.10	1	02/10/2017 04:33
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 04:33
Nitrate & Nitrite as N	**0.24**	0.10	1	02/10/2017 04:33
Sulfate	**280**	40	400	02/10/2017 03:41

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 04:33

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010C**	**Water**	**02/09/2017 13:50**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/10/2017 05:12
Nitrate as $NO3^{-}$	ND	0.45	1	02/10/2017 05:12
Nitrite as N	ND	0.10	1	02/10/2017 05:12
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 05:12
Nitrate & Nitrite as N	ND	0.10	1	02/10/2017 05:12
Sulfate	**1.0**	0.10	1	02/10/2017 05:12

Surrogates	REC (%)	Limits	
Formate	115	85-115	02/10/2017 05:12

Analyst(s): AO Analytical Comments: b1

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011C**	**Water**	**02/09/2017 12:30**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	02/10/2017 05:51
Nitrate as $NO3^{-}$	ND	0.45	1	02/10/2017 05:51
Nitrite as N	ND	0.10	1	02/10/2017 05:51
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 05:51
Nitrate & Nitrite as N	ND	0.10	1	02/10/2017 05:51
Sulfate	**6.3**	2.0	20	02/10/2017 15:34

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/10/2017 05:51

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012C**	**Water**	**02/09/2017 12:45**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.73**	0.10	1	02/10/2017 06:30
Nitrate as $NO3^{-}$	**3.3**	0.45	1	02/10/2017 06:30
Nitrite as N	ND	0.10	1	02/10/2017 06:30
Nitrite as $NO2^{-}$	ND	0.33	1	02/10/2017 06:30
Nitrate & Nitrite as N	**0.73**	0.10	1	02/10/2017 06:30
Sulfate	**53**	2.0	20	02/10/2017 16:13

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/10/2017 06:30

Analyst(s): AO

(Cont.)

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	E300.1
Date Prepared:	2/9/17-2/10/17	**Analytical Method:**	E300.1
Project:	Owens Brockway Glass Plant	**Unit:**	mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013C**	**Water**	**02/09/2017 12:10**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**0.64**	0.10	1	02/10/2017 07:09
Nitrate as $NO3^-$	**2.8**	0.45	1	02/10/2017 07:09
Nitrite as N	ND	0.10	1	02/10/2017 07:09
Nitrite as $NO2^-$	ND	0.33	1	02/10/2017 07:09
Nitrate & Nitrite as N	**0.64**	0.10	1	02/10/2017 07:09
Sulfate	**28**	2.0	20	02/10/2017 16:52

Surrogates	REC (%)	Limits	
Formate	114	85-115	02/10/2017 07:09

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1702545-014C**	**Water**	**02/09/2017 12:25**	**IC3**	**133917**

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	**4.7**	0.10	1	02/10/2017 07:47
Nitrate as $NO3^-$	**21**	0.45	1	02/10/2017 07:47
Nitrite as N	**0.78**	0.10	1	02/10/2017 07:47
Nitrite as $NO2^-$	**2.6**	0.33	1	02/10/2017 07:47
Nitrate & Nitrite as N	**5.5**	0.10	1	02/10/2017 07:47
Sulfate	**160**	40	400	02/10/2017 07:00

Surrogates	REC (%)	Qualifiers	Limits	
Formate	116	S	85-115	02/10/2017 07:47

Analyst(s): AO Analytical Comments: c2

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008B**	**Water**	**02/09/2017 13:00**	**GC18**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Acetone	**11**	10	1	02/14/2017 12:25
tert-Amyl methyl ether (TAME)	ND	0.50	1	02/14/2017 12:25
Benzene	ND	0.50	1	02/14/2017 12:25
Bromobenzene	ND	0.50	1	02/14/2017 12:25
Bromochloromethane	ND	0.50	1	02/14/2017 12:25
Bromodichloromethane	ND	0.50	1	02/14/2017 12:25
Bromoform	ND	0.50	1	02/14/2017 12:25
Bromomethane	ND	0.50	1	02/14/2017 12:25
2-Butanone (MEK)	**2.1**	2.0	1	02/14/2017 12:25
t-Butyl alcohol (TBA)	ND	2.0	1	02/14/2017 12:25
n-Butyl benzene	ND	0.50	1	02/14/2017 12:25
sec-Butyl benzene	ND	0.50	1	02/14/2017 12:25
tert-Butyl benzene	ND	0.50	1	02/14/2017 12:25
Carbon Disulfide	ND	0.50	1	02/14/2017 12:25
Carbon Tetrachloride	ND	0.50	1	02/14/2017 12:25
Chlorobenzene	ND	0.50	1	02/14/2017 12:25
Chloroethane	ND	0.50	1	02/14/2017 12:25
Chloroform	ND	0.50	1	02/14/2017 12:25
Chloromethane	ND	0.50	1	02/14/2017 12:25
2-Chlorotoluene	ND	0.50	1	02/14/2017 12:25
4-Chlorotoluene	ND	0.50	1	02/14/2017 12:25
Dibromochloromethane	ND	0.50	1	02/14/2017 12:25
1,2-Dibromo-3-chloropropane	ND	0.20	1	02/14/2017 12:25
1,2-Dibromoethane (EDB)	ND	0.50	1	02/14/2017 12:25
Dibromomethane	ND	0.50	1	02/14/2017 12:25
1,2-Dichlorobenzene	ND	0.50	1	02/14/2017 12:25
1,3-Dichlorobenzene	ND	0.50	1	02/14/2017 12:25
1,4-Dichlorobenzene	ND	0.50	1	02/14/2017 12:25
Dichlorodifluoromethane	ND	0.50	1	02/14/2017 12:25
1,1-Dichloroethane	ND	0.50	1	02/14/2017 12:25
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/14/2017 12:25
1,1-Dichloroethene	ND	0.50	1	02/14/2017 12:25
cis-1,2-Dichloroethene	ND	0.50	1	02/14/2017 12:25
trans-1,2-Dichloroethene	ND	0.50	1	02/14/2017 12:25
1,2-Dichloropropane	ND	0.50	1	02/14/2017 12:25
1,3-Dichloropropane	ND	0.50	1	02/14/2017 12:25
2,2-Dichloropropane	ND	0.50	1	02/14/2017 12:25

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008B**	**Water**	**02/09/2017 13:00**	**GC18**	**134078**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	02/14/2017 12:25
cis-1,3-Dichloropropene	ND	0.50	1	02/14/2017 12:25
trans-1,3-Dichloropropene	ND	0.50	1	02/14/2017 12:25
Diisopropyl ether (DIPE)	ND	0.50	1	02/14/2017 12:25
Ethylbenzene	ND	0.50	1	02/14/2017 12:25
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	02/14/2017 12:25
Freon 113	ND	0.50	1	02/14/2017 12:25
Hexachlorobutadiene	ND	0.50	1	02/14/2017 12:25
Hexachloroethane	ND	0.50	1	02/14/2017 12:25
2-Hexanone	ND	0.50	1	02/14/2017 12:25
Isopropylbenzene	ND	0.50	1	02/14/2017 12:25
4-Isopropyl toluene	ND	0.50	1	02/14/2017 12:25
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/14/2017 12:25
Methylene chloride	ND	0.50	1	02/14/2017 12:25
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	02/14/2017 12:25
Naphthalene	ND	0.50	1	02/14/2017 12:25
n-Propyl benzene	ND	0.50	1	02/14/2017 12:25
Styrene	ND	0.50	1	02/14/2017 12:25
1,1,1,2-Tetrachloroethane	ND	0.50	1	02/14/2017 12:25
1,1,2,2-Tetrachloroethane	ND	0.50	1	02/14/2017 12:25
Tetrachloroethene	ND	0.50	1	02/14/2017 12:25
Toluene	ND	0.50	1	02/14/2017 12:25
1,2,3-Trichlorobenzene	ND	0.50	1	02/14/2017 12:25
1,2,4-Trichlorobenzene	ND	0.50	1	02/14/2017 12:25
1,1,1-Trichloroethane	ND	0.50	1	02/14/2017 12:25
1,1,2-Trichloroethane	ND	0.50	1	02/14/2017 12:25
Trichloroethene	ND	0.50	1	02/14/2017 12:25
Trichlorofluoromethane	ND	0.50	1	02/14/2017 12:25
1,2,3-Trichloropropane	ND	0.50	1	02/14/2017 12:25
1,2,4-Trimethylbenzene	ND	0.50	1	02/14/2017 12:25
1,3,5-Trimethylbenzene	ND	0.50	1	02/14/2017 12:25
Vinyl Chloride	ND	0.50	1	02/14/2017 12:25
Xylenes, Total	ND	0.50	1	02/14/2017 12:25

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008B**	**Water**	**02/09/2017 13:00**	**GC18**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	94	70-130		02/14/2017 12:25
Toluene-d8	97	70-130		02/14/2017 12:25
4-BFB	93	70-130		02/14/2017 12:25

Analyst(s): HK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1702545-010B	Water	02/09/2017 13:50	GC16	134078

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	02/11/2017 02:04
tert-Amyl methyl ether (TAME)	ND	0.50	1	02/11/2017 02:04
Benzene	ND	0.50	1	02/11/2017 02:04
Bromobenzene	ND	0.50	1	02/11/2017 02:04
Bromochloromethane	ND	0.50	1	02/11/2017 02:04
Bromodichloromethane	ND	0.50	1	02/11/2017 02:04
Bromoform	ND	0.50	1	02/11/2017 02:04
Bromomethane	ND	0.50	1	02/11/2017 02:04
2-Butanone (MEK)	ND	2.0	1	02/11/2017 02:04
t-Butyl alcohol (TBA)	ND	2.0	1	02/11/2017 02:04
n-Butyl benzene	ND	0.50	1	02/11/2017 02:04
sec-Butyl benzene	ND	0.50	1	02/11/2017 02:04
tert-Butyl benzene	ND	0.50	1	02/11/2017 02:04
Carbon Disulfide	ND	0.50	1	02/11/2017 02:04
Carbon Tetrachloride	ND	0.50	1	02/11/2017 02:04
Chlorobenzene	ND	0.50	1	02/11/2017 02:04
Chloroethane	ND	0.50	1	02/11/2017 02:04
Chloroform	ND	0.50	1	02/11/2017 02:04
Chloromethane	ND	0.50	1	02/11/2017 02:04
2-Chlorotoluene	ND	0.50	1	02/11/2017 02:04
4-Chlorotoluene	ND	0.50	1	02/11/2017 02:04
Dibromochloromethane	ND	0.50	1	02/11/2017 02:04
1,2-Dibromo-3-chloropropane	ND	0.20	1	02/11/2017 02:04
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 02:04
Dibromomethane	ND	0.50	1	02/11/2017 02:04
1,2-Dichlorobenzene	ND	0.50	1	02/11/2017 02:04
1,3-Dichlorobenzene	ND	0.50	1	02/11/2017 02:04
1,4-Dichlorobenzene	ND	0.50	1	02/11/2017 02:04
Dichlorodifluoromethane	ND	0.50	1	02/11/2017 02:04
1,1-Dichloroethane	ND	0.50	1	02/11/2017 02:04
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 02:04
1,1-Dichloroethene	ND	0.50	1	02/11/2017 02:04
cis-1,2-Dichloroethene	ND	0.50	1	02/11/2017 02:04
trans-1,2-Dichloroethene	ND	0.50	1	02/11/2017 02:04
1,2-Dichloropropane	ND	0.50	1	02/11/2017 02:04
1,3-Dichloropropane	ND	0.50	1	02/11/2017 02:04
2,2-Dichloropropane	ND	0.50	1	02/11/2017 02:04

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010B**	**Water**	**02/09/2017 13:50**	**GC16**	**134078**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	02/11/2017 02:04
cis-1,3-Dichloropropene	ND	0.50	1	02/11/2017 02:04
trans-1,3-Dichloropropene	ND	0.50	1	02/11/2017 02:04
Diisopropyl ether (DIPE)	ND	0.50	1	02/11/2017 02:04
Ethylbenzene	ND	0.50	1	02/11/2017 02:04
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	02/11/2017 02:04
Freon 113	ND	0.50	1	02/11/2017 02:04
Hexachlorobutadiene	ND	0.50	1	02/11/2017 02:04
Hexachloroethane	ND	0.50	1	02/11/2017 02:04
2-Hexanone	ND	0.50	1	02/11/2017 02:04
Isopropylbenzene	ND	0.50	1	02/11/2017 02:04
4-Isopropyl toluene	ND	0.50	1	02/11/2017 02:04
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 02:04
Methylene chloride	ND	0.50	1	02/11/2017 02:04
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	02/11/2017 02:04
Naphthalene	ND	0.50	1	02/11/2017 02:04
n-Propyl benzene	ND	0.50	1	02/11/2017 02:04
Styrene	ND	0.50	1	02/11/2017 02:04
1,1,1,2-Tetrachloroethane	ND	0.50	1	02/11/2017 02:04
1,1,2,2-Tetrachloroethane	ND	0.50	1	02/11/2017 02:04
Tetrachloroethene	ND	0.50	1	02/11/2017 02:04
Toluene	ND	0.50	1	02/11/2017 02:04
1,2,3-Trichlorobenzene	ND	0.50	1	02/11/2017 02:04
1,2,4-Trichlorobenzene	ND	0.50	1	02/11/2017 02:04
1,1,1-Trichloroethane	ND	0.50	1	02/11/2017 02:04
1,1,2-Trichloroethane	ND	0.50	1	02/11/2017 02:04
Trichloroethene	ND	0.50	1	02/11/2017 02:04
Trichlorofluoromethane	ND	0.50	1	02/11/2017 02:04
1,2,3-Trichloropropane	ND	0.50	1	02/11/2017 02:04
1,2,4-Trimethylbenzene	ND	0.50	1	02/11/2017 02:04
1,3,5-Trimethylbenzene	ND	0.50	1	02/11/2017 02:04
Vinyl Chloride	ND	0.50	1	02/11/2017 02:04
Xylenes, Total	ND	0.50	1	02/11/2017 02:04

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010B**	**Water**	**02/09/2017 13:50**	**GC16**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		02/11/2017 02:04
Toluene-d8	94	70-130		02/11/2017 02:04
4-BFB	101	70-130		02/11/2017 02:04

Analyst(s): HK Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1702545-013B	Water	02/09/2017 12:10	GC16	134078

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	02/11/2017 02:44
tert-Amyl methyl ether (TAME)	ND	0.50	1	02/11/2017 02:44
Benzene	ND	0.50	1	02/11/2017 02:44
Bromobenzene	ND	0.50	1	02/11/2017 02:44
Bromochloromethane	ND	0.50	1	02/11/2017 02:44
Bromodichloromethane	ND	0.50	1	02/11/2017 02:44
Bromoform	ND	0.50	1	02/11/2017 02:44
Bromomethane	ND	0.50	1	02/11/2017 02:44
2-Butanone (MEK)	ND	2.0	1	02/11/2017 02:44
t-Butyl alcohol (TBA)	ND	2.0	1	02/11/2017 02:44
n-Butyl benzene	ND	0.50	1	02/11/2017 02:44
sec-Butyl benzene	ND	0.50	1	02/11/2017 02:44
tert-Butyl benzene	ND	0.50	1	02/11/2017 02:44
Carbon Disulfide	ND	0.50	1	02/11/2017 02:44
Carbon Tetrachloride	ND	0.50	1	02/11/2017 02:44
Chlorobenzene	ND	0.50	1	02/11/2017 02:44
Chloroethane	ND	0.50	1	02/11/2017 02:44
Chloroform	ND	0.50	1	02/11/2017 02:44
Chloromethane	ND	0.50	1	02/11/2017 02:44
2-Chlorotoluene	ND	0.50	1	02/11/2017 02:44
4-Chlorotoluene	ND	0.50	1	02/11/2017 02:44
Dibromochloromethane	ND	0.50	1	02/11/2017 02:44
1,2-Dibromo-3-chloropropane	ND	0.20	1	02/11/2017 02:44
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 02:44
Dibromomethane	ND	0.50	1	02/11/2017 02:44
1,2-Dichlorobenzene	ND	0.50	1	02/11/2017 02:44
1,3-Dichlorobenzene	ND	0.50	1	02/11/2017 02:44
1,4-Dichlorobenzene	ND	0.50	1	02/11/2017 02:44
Dichlorodifluoromethane	ND	0.50	1	02/11/2017 02:44
1,1-Dichloroethane	ND	0.50	1	02/11/2017 02:44
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 02:44
1,1-Dichloroethene	ND	0.50	1	02/11/2017 02:44
cis-1,2-Dichloroethene	ND	0.50	1	02/11/2017 02:44
trans-1,2-Dichloroethene	ND	0.50	1	02/11/2017 02:44
1,2-Dichloropropane	ND	0.50	1	02/11/2017 02:44
1,3-Dichloropropane	ND	0.50	1	02/11/2017 02:44
2,2-Dichloropropane	ND	0.50	1	02/11/2017 02:44

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013B**	**Water**	**02/09/2017 12:10**	**GC16**	**134078**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	02/11/2017 02:44
cis-1,3-Dichloropropene	ND	0.50	1	02/11/2017 02:44
trans-1,3-Dichloropropene	ND	0.50	1	02/11/2017 02:44
Diisopropyl ether (DIPE)	ND	0.50	1	02/11/2017 02:44
Ethylbenzene	ND	0.50	1	02/11/2017 02:44
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	02/11/2017 02:44
Freon 113	ND	0.50	1	02/11/2017 02:44
Hexachlorobutadiene	ND	0.50	1	02/11/2017 02:44
Hexachloroethane	ND	0.50	1	02/11/2017 02:44
2-Hexanone	ND	0.50	1	02/11/2017 02:44
Isopropylbenzene	ND	0.50	1	02/11/2017 02:44
4-Isopropyl toluene	ND	0.50	1	02/11/2017 02:44
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 02:44
Methylene chloride	ND	0.50	1	02/11/2017 02:44
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	02/11/2017 02:44
Naphthalene	ND	0.50	1	02/11/2017 02:44
n-Propyl benzene	ND	0.50	1	02/11/2017 02:44
Styrene	ND	0.50	1	02/11/2017 02:44
1,1,1,2-Tetrachloroethane	ND	0.50	1	02/11/2017 02:44
1,1,2,2-Tetrachloroethane	ND	0.50	1	02/11/2017 02:44
Tetrachloroethene	ND	0.50	1	02/11/2017 02:44
Toluene	ND	0.50	1	02/11/2017 02:44
1,2,3-Trichlorobenzene	ND	0.50	1	02/11/2017 02:44
1,2,4-Trichlorobenzene	ND	0.50	1	02/11/2017 02:44
1,1,1-Trichloroethane	ND	0.50	1	02/11/2017 02:44
1,1,2-Trichloroethane	ND	0.50	1	02/11/2017 02:44
Trichloroethene	ND	0.50	1	02/11/2017 02:44
Trichlorofluoromethane	ND	0.50	1	02/11/2017 02:44
1,2,3-Trichloropropane	ND	0.50	1	02/11/2017 02:44
1,2,4-Trimethylbenzene	ND	0.50	1	02/11/2017 02:44
1,3,5-Trimethylbenzene	ND	0.50	1	02/11/2017 02:44
Vinyl Chloride	ND	0.50	1	02/11/2017 02:44
Xylenes, Total	ND	0.50	1	02/11/2017 02:44

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013B**	**Water**	**02/09/2017 12:10**	**GC16**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		02/11/2017 02:44
Toluene-d8	93	70-130		02/11/2017 02:44
4-BFB	100	70-130		02/11/2017 02:44

Analyst(s): HK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
TB-1	1702545-015A	Water	02/09/2017 08:30	GC16	134078

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	02/11/2017 03:24
tert-Amyl methyl ether (TAME)	ND	0.50	1	02/11/2017 03:24
Benzene	ND	0.50	1	02/11/2017 03:24
Bromobenzene	ND	0.50	1	02/11/2017 03:24
Bromochloromethane	ND	0.50	1	02/11/2017 03:24
Bromodichloromethane	ND	0.50	1	02/11/2017 03:24
Bromoform	ND	0.50	1	02/11/2017 03:24
Bromomethane	ND	0.50	1	02/11/2017 03:24
2-Butanone (MEK)	ND	2.0	1	02/11/2017 03:24
t-Butyl alcohol (TBA)	ND	2.0	1	02/11/2017 03:24
n-Butyl benzene	ND	0.50	1	02/11/2017 03:24
sec-Butyl benzene	ND	0.50	1	02/11/2017 03:24
tert-Butyl benzene	ND	0.50	1	02/11/2017 03:24
Carbon Disulfide	ND	0.50	1	02/11/2017 03:24
Carbon Tetrachloride	ND	0.50	1	02/11/2017 03:24
Chlorobenzene	ND	0.50	1	02/11/2017 03:24
Chloroethane	ND	0.50	1	02/11/2017 03:24
Chloroform	ND	0.50	1	02/11/2017 03:24
Chloromethane	ND	0.50	1	02/11/2017 03:24
2-Chlorotoluene	ND	0.50	1	02/11/2017 03:24
4-Chlorotoluene	ND	0.50	1	02/11/2017 03:24
Dibromochloromethane	ND	0.50	1	02/11/2017 03:24
1,2-Dibromo-3-chloropropane	ND	0.20	1	02/11/2017 03:24
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 03:24
Dibromomethane	ND	0.50	1	02/11/2017 03:24
1,2-Dichlorobenzene	ND	0.50	1	02/11/2017 03:24
1,3-Dichlorobenzene	ND	0.50	1	02/11/2017 03:24
1,4-Dichlorobenzene	ND	0.50	1	02/11/2017 03:24
Dichlorodifluoromethane	ND	0.50	1	02/11/2017 03:24
1,1-Dichloroethane	ND	0.50	1	02/11/2017 03:24
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 03:24
1,1-Dichloroethene	ND	0.50	1	02/11/2017 03:24
cis-1,2-Dichloroethene	ND	0.50	1	02/11/2017 03:24
trans-1,2-Dichloroethene	ND	0.50	1	02/11/2017 03:24
1,2-Dichloropropane	ND	0.50	1	02/11/2017 03:24
1,3-Dichloropropane	ND	0.50	1	02/11/2017 03:24
2,2-Dichloropropane	ND	0.50	1	02/11/2017 03:24

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
TB-1	1702545-015A	Water	02/09/2017 08:30	GC16	134078

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	02/11/2017 03:24
cis-1,3-Dichloropropene	ND	0.50	1	02/11/2017 03:24
trans-1,3-Dichloropropene	ND	0.50	1	02/11/2017 03:24
Diisopropyl ether (DIPE)	ND	0.50	1	02/11/2017 03:24
Ethylbenzene	ND	0.50	1	02/11/2017 03:24
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	02/11/2017 03:24
Freon 113	ND	0.50	1	02/11/2017 03:24
Hexachlorobutadiene	ND	0.50	1	02/11/2017 03:24
Hexachloroethane	ND	0.50	1	02/11/2017 03:24
2-Hexanone	ND	0.50	1	02/11/2017 03:24
Isopropylbenzene	ND	0.50	1	02/11/2017 03:24
4-Isopropyl toluene	ND	0.50	1	02/11/2017 03:24
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 03:24
Methylene chloride	ND	0.50	1	02/11/2017 03:24
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	02/11/2017 03:24
Naphthalene	ND	0.50	1	02/11/2017 03:24
n-Propyl benzene	ND	0.50	1	02/11/2017 03:24
Styrene	ND	0.50	1	02/11/2017 03:24
1,1,1,2-Tetrachloroethane	ND	0.50	1	02/11/2017 03:24
1,1,2,2-Tetrachloroethane	ND	0.50	1	02/11/2017 03:24
Tetrachloroethene	ND	0.50	1	02/11/2017 03:24
Toluene	ND	0.50	1	02/11/2017 03:24
1,2,3-Trichlorobenzene	ND	0.50	1	02/11/2017 03:24
1,2,4-Trichlorobenzene	ND	0.50	1	02/11/2017 03:24
1,1,1-Trichloroethane	ND	0.50	1	02/11/2017 03:24
1,1,2-Trichloroethane	ND	0.50	1	02/11/2017 03:24
Trichloroethene	ND	0.50	1	02/11/2017 03:24
Trichlorofluoromethane	ND	0.50	1	02/11/2017 03:24
1,2,3-Trichloropropane	ND	0.50	1	02/11/2017 03:24
1,2,4-Trimethylbenzene	ND	0.50	1	02/11/2017 03:24
1,3,5-Trimethylbenzene	ND	0.50	1	02/11/2017 03:24
Vinyl Chloride	ND	0.50	1	02/11/2017 03:24
Xylenes, Total	ND	0.50	1	02/11/2017 03:24

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
TB-1	**1702545-015A**	**Water**	**02/09/2017 08:30**	**GC16**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		02/11/2017 03:24
Toluene-d8	95	70-130		02/11/2017 03:24
4-BFB	103	70-130		02/11/2017 03:24

Analyst(s): HK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001B**	**Water**	**02/09/2017 13:00**	**GC28**	**134078**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/13/2017 20:31
1,2-Dibromoethane (EDB)	ND	0.50	1	02/13/2017 20:31
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/13/2017 20:31
Ethylbenzene	ND	0.50	1	02/13/2017 20:31
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/13/2017 20:31
Naphthalene	ND	0.50	1	02/13/2017 20:31
Toluene	ND	0.50	1	02/13/2017 20:31
Xylenes, Total	ND	0.50	1	02/13/2017 20:31

Surrogates	REC (%)	Limits	
Dibromofluoromethane	97	70-130	02/13/2017 20:31
Toluene-d8	103	70-130	02/13/2017 20:31
4-BFB	116	70-130	02/13/2017 20:31

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002B**	**Water**	**02/09/2017 13:15**	**GC18**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/10/2017 21:32
1,2-Dibromoethane (EDB)	ND	0.50	1	02/10/2017 21:32
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/10/2017 21:32
Ethylbenzene	ND	0.50	1	02/10/2017 21:32
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/10/2017 21:32
Naphthalene	ND	0.50	1	02/10/2017 21:32
Toluene	ND	0.50	1	02/10/2017 21:32
Xylenes, Total	ND	0.50	1	02/10/2017 21:32

Surrogates	REC (%)	Limits	
Dibromofluoromethane	104	70-130	02/10/2017 21:32
Toluene-d8	103	70-130	02/10/2017 21:32
4-BFB	102	70-130	02/10/2017 21:32

Analyst(s): KF

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003B**	**Water**	**02/09/2017 12:45**	**GC28**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/13/2017 21:08
1,2-Dibromoethane (EDB)	ND	0.50	1	02/13/2017 21:08
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/13/2017 21:08
Ethylbenzene	ND	0.50	1	02/13/2017 21:08
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/13/2017 21:08
Naphthalene	ND	0.50	1	02/13/2017 21:08
Toluene	ND	0.50	1	02/13/2017 21:08
Xylenes, Total	ND	0.50	1	02/13/2017 21:08

Surrogates	REC (%)	Limits	
Dibromofluoromethane	96	70-130	02/13/2017 21:08
Toluene-d8	102	70-130	02/13/2017 21:08
4-BFB	115	70-130	02/13/2017 21:08

Analyst(s): AK Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004B**	**Water**	**02/09/2017 13:00**	**GC28**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/13/2017 21:44
1,2-Dibromoethane (EDB)	ND	0.50	1	02/13/2017 21:44
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/13/2017 21:44
Ethylbenzene	ND	0.50	1	02/13/2017 21:44
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/13/2017 21:44
Naphthalene	ND	0.50	1	02/13/2017 21:44
Toluene	ND	0.50	1	02/13/2017 21:44
Xylenes, Total	ND	0.50	1	02/13/2017 21:44

Surrogates	REC (%)	Limits	
Dibromofluoromethane	97	70-130	02/13/2017 21:44
Toluene-d8	102	70-130	02/13/2017 21:44
4-BFB	115	70-130	02/13/2017 21:44

Analyst(s): AK Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1702545-005B**	**Water**	**02/09/2017 12:20**	**GC18**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/10/2017 23:30
1,2-Dibromoethane (EDB)	ND	0.50	1	02/10/2017 23:30
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/10/2017 23:30
Ethylbenzene	ND	0.50	1	02/10/2017 23:30
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/10/2017 23:30
Naphthalene	ND	0.50	1	02/10/2017 23:30
Toluene	ND	0.50	1	02/10/2017 23:30
Xylenes, Total	ND	0.50	1	02/10/2017 23:30

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	02/10/2017 23:30
Toluene-d8	103	70-130	02/10/2017 23:30
4-BFB	104	70-130	02/10/2017 23:30

Analyst(s): KF Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1702545-006B**	**Water**	**02/09/2017 13:35**	**GC28**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/13/2017 22:21
1,2-Dibromoethane (EDB)	ND	0.50	1	02/13/2017 22:21
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/13/2017 22:21
Ethylbenzene	ND	0.50	1	02/13/2017 22:21
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/13/2017 22:21
Naphthalene	ND	0.50	1	02/13/2017 22:21
Toluene	ND	0.50	1	02/13/2017 22:21
Xylenes, Total	ND	0.50	1	02/13/2017 22:21

Surrogates	REC (%)	Limits	
Dibromofluoromethane	98	70-130	02/13/2017 22:21
Toluene-d8	102	70-130	02/13/2017 22:21
4-BFB	117	70-130	02/13/2017 22:21

Analyst(s): AK

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1702545-007B**	**Water**	**02/09/2017 12:40**	**GC18**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/11/2017 00:49
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 00:49
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 00:49
Ethylbenzene	ND	0.50	1	02/11/2017 00:49
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 00:49
Naphthalene	ND	0.50	1	02/11/2017 00:49
Toluene	ND	0.50	1	02/11/2017 00:49
Xylenes, Total	ND	0.50	1	02/11/2017 00:49

Surrogates	REC (%)	Limits	
Dibromofluoromethane	105	70-130	02/11/2017 00:49
Toluene-d8	104	70-130	02/11/2017 00:49
4-BFB	105	70-130	02/11/2017 00:49

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009B**	**Water**	**02/09/2017 13:30**	**GC18**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/11/2017 01:28
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 01:28
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 01:28
Ethylbenzene	ND	0.50	1	02/11/2017 01:28
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 01:28
Naphthalene	ND	0.50	1	02/11/2017 01:28
Toluene	ND	0.50	1	02/11/2017 01:28
Xylenes, Total	ND	0.50	1	02/11/2017 01:28

Surrogates	REC (%)	Limits	
Dibromofluoromethane	105	70-130	02/11/2017 01:28
Toluene-d8	105	70-130	02/11/2017 01:28
4-BFB	101	70-130	02/11/2017 01:28

Analyst(s): KF

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011B**	**Water**	**02/09/2017 12:30**	**GC28**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/13/2017 23:35
1,2-Dibromoethane (EDB)	ND	0.50	1	02/13/2017 23:35
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/13/2017 23:35
Ethylbenzene	ND	0.50	1	02/13/2017 23:35
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/13/2017 23:35
Naphthalene	ND	0.50	1	02/13/2017 23:35
Toluene	ND	0.50	1	02/13/2017 23:35
Xylenes, Total	ND	0.50	1	02/13/2017 23:35

Surrogates	REC (%)	Limits	
Dibromofluoromethane	99	70-130	02/13/2017 23:35
Toluene-d8	102	70-130	02/13/2017 23:35
4-BFB	114	70-130	02/13/2017 23:35

Analyst(s): AK Analytical Comments: b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012B**	**Water**	**02/09/2017 12:45**	**GC28**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/14/2017 00:12
1,2-Dibromoethane (EDB)	ND	0.50	1	02/14/2017 00:12
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/14/2017 00:12
Ethylbenzene	ND	0.50	1	02/14/2017 00:12
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/14/2017 00:12
Naphthalene	ND	0.50	1	02/14/2017 00:12
Toluene	ND	0.50	1	02/14/2017 00:12
Xylenes, Total	ND	0.50	1	02/14/2017 00:12

Surrogates	REC (%)	Limits	
Dibromofluoromethane	98	70-130	02/14/2017 00:12
Toluene-d8	103	70-130	02/14/2017 00:12
4-BFB	118	70-130	02/14/2017 00:12

Analyst(s): AK

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Angela Rydelius, Lab Manager

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/10/17-2/14/17	**Analytical Method:**	SW8260B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1702545-014B**	**Water**	**02/09/2017 12:25**	**GC18**	**134054**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	02/11/2017 03:24
1,2-Dibromoethane (EDB)	ND	0.50	1	02/11/2017 03:24
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	02/11/2017 03:24
Ethylbenzene	ND	0.50	1	02/11/2017 03:24
Methyl-t-butyl ether (MTBE)	ND	0.50	1	02/11/2017 03:24
Naphthalene	ND	0.50	1	02/11/2017 03:24
Toluene	ND	0.50	1	02/11/2017 03:24
Xylenes, Total	ND	0.50	1	02/11/2017 03:24

Surrogates	REC (%)	Limits	
Dibromofluoromethane	105	70-130	02/11/2017 03:24
Toluene-d8	105	70-130	02/11/2017 03:24
4-BFB	99	70-130	02/11/2017 03:24

Analyst(s): KF

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM2320 B-1997
Date Prepared:	2/13/17	**Analytical Method:**	SM2320 B
Project:	Owens Brockway Glass Plant	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001D**	**Water**	**02/09/2017 13:00**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**1090**	10.0	10	02/13/2017 10:02
Carbonate	**308**	10.0	10	02/13/2017 10:02
Bicarbonate	ND	10.0	10	02/13/2017 10:02
Hydroxide	**784**	10.0	10	02/13/2017 10:02

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002D**	**Water**	**02/09/2017 13:15**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**655**	1.00	1	02/13/2017 10:17
Carbonate	ND	1.00	1	02/13/2017 10:17
Bicarbonate	**655**	1.00	1	02/13/2017 10:17
Hydroxide	ND	1.00	1	02/13/2017 10:17

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003D**	**Water**	**02/09/2017 12:45**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**728**	1.00	1	02/13/2017 10:33
Carbonate	ND	1.00	1	02/13/2017 10:33
Bicarbonate	**728**	1.00	1	02/13/2017 10:33
Hydroxide	ND	1.00	1	02/13/2017 10:33

Analyst(s): HN Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM2320 B-1997
Date Prepared:	2/13/17	**Analytical Method:**	SM2320 B
Project:	Owens Brockway Glass Plant	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004D**	**Water**	**02/09/2017 13:00**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**333**	1.00	1	02/13/2017 10:41
Carbonate	ND	1.00	1	02/13/2017 10:41
Bicarbonate	**333**	1.00	1	02/13/2017 10:41
Hydroxide	ND	1.00	1	02/13/2017 10:41

Analyst(s): HN Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1702545-005D**	**Water**	**02/09/2017 12:20**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**579**	1.00	1	02/13/2017 10:54
Carbonate	ND	1.00	1	02/13/2017 10:54
Bicarbonate	**579**	1.00	1	02/13/2017 10:54
Hydroxide	ND	1.00	1	02/13/2017 10:54

Analyst(s): HN Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1702545-006D**	**Water**	**02/09/2017 13:35**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**384**	1.00	1	02/13/2017 11:38
Carbonate	ND	1.00	1	02/13/2017 11:38
Bicarbonate	**384**	1.00	1	02/13/2017 11:38
Hydroxide	ND	1.00	1	02/13/2017 11:38

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM2320 B-1997
Date Prepared:	2/13/17	**Analytical Method:**	SM2320 B
Project:	Owens Brockway Glass Plant	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1702545-007D**	**Water**	**02/09/2017 12:40**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**326**	1.00	1	02/13/2017 11:46
Carbonate	ND	1.00	1	02/13/2017 11:46
Bicarbonate	**326**	1.00	1	02/13/2017 11:46
Hydroxide	ND	1.00	1	02/13/2017 11:46

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008D**	**Water**	**02/09/2017 13:00**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**153**	1.00	1	02/13/2017 11:50
Carbonate	ND	1.00	1	02/13/2017 11:50
Bicarbonate	**153**	1.00	1	02/13/2017 11:50
Hydroxide	ND	1.00	1	02/13/2017 11:50

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009D**	**Water**	**02/09/2017 13:30**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**738**	1.00	1	02/13/2017 12:07
Carbonate	ND	1.00	1	02/13/2017 12:07
Bicarbonate	**738**	1.00	1	02/13/2017 12:07
Hydroxide	ND	1.00	1	02/13/2017 12:07

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM2320 B-1997
Date Prepared:	2/13/17	**Analytical Method:**	SM2320 B
Project:	Owens Brockway Glass Plant	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010D**	**Water**	**02/09/2017 13:50**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**31.9**	1.00	1	02/13/2017 12:09
Carbonate	ND	1.00	1	02/13/2017 12:09
Bicarbonate	**31.9**	1.00	1	02/13/2017 12:09
Hydroxide	ND	1.00	1	02/13/2017 12:09

Analyst(s): HN Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011D**	**Water**	**02/09/2017 12:30**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**165**	1.00	1	02/13/2017 12:14
Carbonate	ND	1.00	1	02/13/2017 12:14
Bicarbonate	**165**	1.00	1	02/13/2017 12:14
Hydroxide	ND	1.00	1	02/13/2017 12:14

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012D**	**Water**	**02/09/2017 12:45**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**742**	1.00	1	02/13/2017 12:30
Carbonate	ND	1.00	1	02/13/2017 12:30
Bicarbonate	**742**	1.00	1	02/13/2017 12:30
Hydroxide	ND	1.00	1	02/13/2017 12:30

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM2320 B-1997
Date Prepared:	2/13/17	**Analytical Method:**	SM2320 B
Project:	Owens Brockway Glass Plant	**Unit:**	mg $CaCO_3$/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013D**	**Water**	**02/09/2017 12:10**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**113**	1.00	1	02/13/2017 12:35
Carbonate	ND	1.00	1	02/13/2017 12:35
Bicarbonate	**113**	1.00	1	02/13/2017 12:35
Hydroxide	ND	1.00	1	02/13/2017 12:35

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1702545-014D**	**Water**	**02/09/2017 12:25**	**Titrino**	**134057**

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	**930**	1.00	1	02/13/2017 12:55
Carbonate	ND	1.00	1	02/13/2017 12:55
Bicarbonate	**930**	1.00	1	02/13/2017 12:55
Hydroxide	ND	1.00	1	02/13/2017 12:55

Analyst(s): HN

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001A**	**Water**	**02/09/2017 13:00**	**GC3**	**134053**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/14/2017 00:16
MTBE	---	5.0	1	02/14/2017 00:16
Benzene	---	0.50	1	02/14/2017 00:16
Toluene	---	0.50	1	02/14/2017 00:16
Ethylbenzene	---	0.50	1	02/14/2017 00:16
Xylenes	---	1.5	1	02/14/2017 00:16

Surrogates	REC (%)	Limits	
aaa-TFT	103	89-115	02/14/2017 00:16

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002A**	**Water**	**02/09/2017 13:15**	**GC3**	**134053**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/12/2017 15:12
MTBE	---	5.0	1	02/12/2017 15:12
Benzene	---	0.50	1	02/12/2017 15:12
Toluene	---	0.50	1	02/12/2017 15:12
Ethylbenzene	---	0.50	1	02/12/2017 15:12
Xylenes	---	1.5	1	02/12/2017 15:12

Surrogates	REC (%)	Limits	
aaa-TFT	102	89-115	02/12/2017 15:12

Analyst(s): TD

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003A**	**Water**	**02/09/2017 12:45**	**GC3**	**134053**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/12/2017 15:43
MTBE	---	5.0	1	02/12/2017 15:43
Benzene	---	0.50	1	02/12/2017 15:43
Toluene	---	0.50	1	02/12/2017 15:43
Ethylbenzene	---	0.50	1	02/12/2017 15:43
Xylenes	---	1.5	1	02/12/2017 15:43

Surrogates	REC (%)	Limits	
aaa-TFT	104	89-115	02/12/2017 15:43

Analyst(s): TD Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004A**	**Water**	**02/09/2017 13:00**	**GC3**	**134053**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**140**	50	1	02/12/2017 16:14
MTBE	---	5.0	1	02/12/2017 16:14
Benzene	---	0.50	1	02/12/2017 16:14
Toluene	---	0.50	1	02/12/2017 16:14
Ethylbenzene	---	0.50	1	02/12/2017 16:14
Xylenes	---	1.5	1	02/12/2017 16:14

Surrogates	REC (%)	Limits	
aaa-TFT	97	89-115	02/12/2017 16:14

Analyst(s): TD Analytical Comments: d9,b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1702545-005A**	**Water**	**02/09/2017 12:20**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**290**	50	1	02/11/2017 05:28
MTBE	**---**	5.0	1	02/11/2017 05:28
Benzene	**---**	0.50	1	02/11/2017 05:28
Toluene	**---**	0.50	1	02/11/2017 05:28
Ethylbenzene	**---**	0.50	1	02/11/2017 05:28
Xylenes	**---**	1.5	1	02/11/2017 05:28

Surrogates	REC (%)	Limits	
aaa-TFT	92	89-115	02/11/2017 05:28

Analyst(s): IA Analytical Comments: d7,d9,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1702545-006A**	**Water**	**02/09/2017 13:35**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**200**	50	1	02/11/2017 05:58
MTBE	**---**	5.0	1	02/11/2017 05:58
Benzene	**---**	0.50	1	02/11/2017 05:58
Toluene	**---**	0.50	1	02/11/2017 05:58
Ethylbenzene	**---**	0.50	1	02/11/2017 05:58
Xylenes	**---**	1.5	1	02/11/2017 05:58

Surrogates	REC (%)	Limits	
aaa-TFT	99	89-115	02/11/2017 05:58

Analyst(s): IA Analytical Comments: d7,d9

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1702545-007A**	**Water**	**02/09/2017 12:40**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/11/2017 06:27
MTBE	---	5.0	1	02/11/2017 06:27
Benzene	---	0.50	1	02/11/2017 06:27
Toluene	---	0.50	1	02/11/2017 06:27
Ethylbenzene	---	0.50	1	02/11/2017 06:27
Xylenes	---	1.5	1	02/11/2017 06:27

Surrogates	REC (%)	Limits	
aaa-TFT	103	89-115	02/11/2017 06:27

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008A**	**Water**	**02/09/2017 13:00**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/11/2017 06:57
MTBE	---	5.0	1	02/11/2017 06:57
Benzene	---	0.50	1	02/11/2017 06:57
Toluene	---	0.50	1	02/11/2017 06:57
Ethylbenzene	---	0.50	1	02/11/2017 06:57
Xylenes	---	1.5	1	02/11/2017 06:57

Surrogates	REC (%)	Limits	
aaa-TFT	103	89-115	02/11/2017 06:57

Analyst(s): IA

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NELAP 4033ORELAP

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009A**	**Water**	**02/09/2017 13:30**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/11/2017 07:27
MTBE	---	5.0	1	02/11/2017 07:27
Benzene	---	0.50	1	02/11/2017 07:27
Toluene	---	0.50	1	02/11/2017 07:27
Ethylbenzene	---	0.50	1	02/11/2017 07:27
Xylenes	---	1.5	1	02/11/2017 07:27

Surrogates	REC (%)	Limits	
aaa-TFT	101	89-115	02/11/2017 07:27

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010A**	**Water**	**02/09/2017 13:50**	**GC3**	**134049**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/11/2017 07:57
MTBE	---	5.0	1	02/11/2017 07:57
Benzene	---	0.50	1	02/11/2017 07:57
Toluene	---	0.50	1	02/11/2017 07:57
Ethylbenzene	---	0.50	1	02/11/2017 07:57
Xylenes	---	1.5	1	02/11/2017 07:57

Surrogates	REC (%)	Limits	
aaa-TFT	104	89-115	02/11/2017 07:57

Analyst(s): IA Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011A**	**Water**	**02/09/2017 12:30**	**GC3**	**134053**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**100**	50	1	02/12/2017 16:45
MTBE	**---**	5.0	1	02/12/2017 16:45
Benzene	**---**	0.50	1	02/12/2017 16:45
Toluene	**---**	0.50	1	02/12/2017 16:45
Ethylbenzene	**---**	0.50	1	02/12/2017 16:45
Xylenes	**---**	1.5	1	02/12/2017 16:45

Surrogates	REC (%)	Limits	
aaa-TFT	114	89-115	02/12/2017 16:45

Analyst(s): TD Analytical Comments: d7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012A**	**Water**	**02/09/2017 12:45**	**GC3**	**134050**

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	**170**	50	1	02/13/2017 03:45
MTBE	**---**	5.0	1	02/13/2017 03:45
Benzene	**---**	0.50	1	02/13/2017 03:45
Toluene	**---**	0.50	1	02/13/2017 03:45
Ethylbenzene	**---**	0.50	1	02/13/2017 03:45
Xylenes	**---**	1.5	1	02/13/2017 03:45

Surrogates	REC (%)	Limits	
aaa-TFT	94	89-115	02/13/2017 03:45

Analyst(s): TD Analytical Comments: d7

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW5030B
Date Prepared:	2/11/17-2/14/17	**Analytical Method:**	SW8021B/8015Bm
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1702545-013A	Water	02/09/2017 12:10	GC3	134050

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/12/2017 02:11
MTBE	---	5.0	1	02/12/2017 02:11
Benzene	---	0.50	1	02/12/2017 02:11
Toluene	---	0.50	1	02/12/2017 02:11
Ethylbenzene	---	0.50	1	02/12/2017 02:11
Xylenes	---	1.5	1	02/12/2017 02:11

Surrogates	REC (%)	Limits	
aaa-TFT	104	89-115	02/12/2017 02:11

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1702545-014A	Water	02/09/2017 12:25	GC3	134050

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	02/12/2017 02:41
MTBE	---	5.0	1	02/12/2017 02:41
Benzene	---	0.50	1	02/12/2017 02:41
Toluene	---	0.50	1	02/12/2017 02:41
Ethylbenzene	---	0.50	1	02/12/2017 02:41
Xylenes	---	1.5	1	02/12/2017 02:41

Surrogates	REC (%)	Limits	
aaa-TFT	110	89-115	02/12/2017 02:41

Analyst(s): LT

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM9215B
Date Prepared:	2/9/17	**Analytical Method:**	SM9215B
Project:	Owens Brockway Glass Plant	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001E**	**Water**	**02/09/2017 13:00**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**3.0**	1.0	1	---	02/09/2017 16:16

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002E**	**Water**	**02/09/2017 13:15**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**22,000**	100	100	---	02/09/2017 16:18

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003E**	**Water**	**02/09/2017 12:45**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**4100**	100	100	---	02/09/2017 16:19

Analyst(s): AB Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004E**	**Water**	**02/09/2017 13:00**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**110,000**	1000	1,000	---	02/09/2017 16:20

Analyst(s): AB Analytical Comments: b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM9215B
Date Prepared:	2/9/17	**Analytical Method:**	SM9215B
Project:	Owens Brockway Glass Plant	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1702545-005E	Water	02/09/2017 12:20	MICROBIOLOGY	133954

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**38,000**	1000	1,000	---	02/09/2017 16:21

Analyst(s): AB Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1702545-006E	Water	02/09/2017 13:35	MICROBIOLOGY	133954

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**670**	10	10	---	02/09/2017 16:22

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1702545-007E	Water	02/09/2017 12:40	MICROBIOLOGY	133954

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**20,000**	100	100	---	02/09/2017 16:23

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1702545-008E	Water	02/09/2017 13:00	MICROBIOLOGY	133954

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**24,000**	100	100	---	02/09/2017 16:24

Analyst(s): AB

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM9215B
Date Prepared:	2/9/17	**Analytical Method:**	SM9215B
Project:	Owens Brockway Glass Plant	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009E**	**Water**	**02/09/2017 13:30**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**9600**	100	100	---	02/09/2017 16:25

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010E**	**Water**	**02/09/2017 13:50**	**MICROBIOLOGY**	**133954**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**21,000**	100	100	---	02/09/2017 16:26

Analyst(s): AB Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011E**	**Water**	**02/09/2017 12:30**	**MICROBIOLOGY**	**133955**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**34,000**	1000	1,000	---	02/09/2017 16:28

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012E**	**Water**	**02/09/2017 12:45**	**MICROBIOLOGY**	**133955**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**8500**	100	100	---	02/09/2017 16:30

Analyst(s): AB

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SM9215B
Date Prepared:	2/9/17	**Analytical Method:**	SM9215B
Project:	Owens Brockway Glass Plant	**Unit:**	CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013E**	**Water**	**02/09/2017 12:10**	**MICROBIOLOGY**	**133955**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**15,000**	100	100	---	02/09/2017 16:31

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1702545-014E**	**Water**	**02/09/2017 12:25**	**MICROBIOLOGY**	**133955**

Analytes	Result	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	**110,000**	1000	1,000	---	02/09/2017 16:32

Analyst(s): AB

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW3510C/3630C
Date Prepared:	2/9/17	**Analytical Method:**	SW8015B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	**1702545-001A**	**Water**	**02/09/2017 13:00**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**460**	50	1	02/09/2017 23:53
TPH-Motor Oil (C18-C36)	**470**	250	1	02/09/2017 23:53

Surrogates	REC (%)	Limits	
C9	92	70-130	02/09/2017 23:53

Analyst(s): TK Analytical Comments: e2,e7,e4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	**1702545-002A**	**Water**	**02/09/2017 13:15**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	02/10/2017 01:10
TPH-Motor Oil (C18-C36)	ND	250	1	02/10/2017 01:10

Surrogates	REC (%)	Limits	
C9	92	70-130	02/10/2017 01:10

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	**1702545-003A**	**Water**	**02/09/2017 12:45**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**6700**	250	5	02/10/2017 02:28
TPH-Motor Oil (C18-C36)	**7600**	1200	5	02/10/2017 02:28

Surrogates	REC (%)	Limits	
C9	93	70-130	02/10/2017 02:28

Analyst(s): TK Analytical Comments: e2,e7,e4/e11,b1

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW3510C/3630C
Date Prepared:	2/9/17	**Analytical Method:**	SW8015B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	**1702545-004A**	**Water**	**02/09/2017 13:00**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**23,000**	750	5	02/10/2017 05:03
TPH-Motor Oil (C18-C36)	**21,000**	3800	5	02/10/2017 05:03

Surrogates	REC (%)	Limits	
C9	100	70-130	02/10/2017 05:03

Analyst(s): TK Analytical Comments: e2,e7,e11,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	**1702545-005A**	**Water**	**02/09/2017 12:20**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1900**	100	1	02/10/2017 06:21
TPH-Motor Oil (C18-C36)	**730**	500	1	02/10/2017 06:21

Surrogates	REC (%)	Limits	
C9	95	70-130	02/10/2017 06:21

Analyst(s): TK Analytical Comments: e11,e2,e7,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	**1702545-006A**	**Water**	**02/09/2017 13:35**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	100	1	02/10/2017 07:39
TPH-Motor Oil (C18-C36)	ND	500	1	02/10/2017 07:39

Surrogates	REC (%)	Limits	
C9	93	70-130	02/10/2017 07:39

Analyst(s): TK Analytical Comments: a3

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW3510C/3630C
Date Prepared:	2/9/17	**Analytical Method:**	SW8015B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	**1702545-007A**	**Water**	**02/09/2017 12:40**	**GC6A**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**180**	100	1	02/10/2017 20:33
TPH-Motor Oil (C18-C36)	**570**	500	1	02/10/2017 20:33

Surrogates	REC (%)	Limits	
C9	99	70-130	02/10/2017 20:33

Analyst(s): TK Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	**1702545-008A**	**Water**	**02/09/2017 13:00**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	02/10/2017 12:11
TPH-Motor Oil (C18-C36)	ND	250	1	02/10/2017 12:11

Surrogates	REC (%)	Limits	
C9	91	70-130	02/10/2017 12:11

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	**1702545-009A**	**Water**	**02/09/2017 13:30**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**67**	50	1	02/10/2017 12:50
TPH-Motor Oil (C18-C36)	**340**	250	1	02/10/2017 12:50

Surrogates	REC (%)	Limits	
C9	92	70-130	02/10/2017 12:50

Analyst(s): TK Analytical Comments: e7,e2

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW3510C/3630C
Date Prepared:	2/9/17	**Analytical Method:**	SW8015B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	**1702545-010A**	**Water**	**02/09/2017 13:50**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**83**	50	1	02/10/2017 13:29
TPH-Motor Oil (C18-C36)	**1300**	250	1	02/10/2017 13:29

Surrogates	REC (%)	Limits	
C9	91	70-130	02/10/2017 13:29

Analyst(s): TK Analytical Comments: e7,e2,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	**1702545-011A**	**Water**	**02/09/2017 12:30**	**GC9a**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**10,000**	50	1	02/10/2017 13:29
TPH-Motor Oil (C18-C36)	**5700**	250	1	02/10/2017 13:29

Surrogates	REC (%)	Limits	
C9	101	70-130	02/10/2017 13:29

Analyst(s): TK Analytical Comments: e3,e7,e11

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	**1702545-012A**	**Water**	**02/09/2017 12:45**	**GC9a**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**110**	50	1	02/10/2017 12:50
TPH-Motor Oil (C18-C36)	ND	250	1	02/10/2017 12:50

Surrogates	REC (%)	Limits	
C9	101	70-130	02/10/2017 12:50

Analyst(s): TK Analytical Comments: e11

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Analytical Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Received:	2/9/17 15:40	**Extraction Method:**	SW3510C/3630C
Date Prepared:	2/9/17	**Analytical Method:**	SW8015B
Project:	Owens Brockway Glass Plant	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	**1702545-013A**	**Water**	**02/09/2017 12:10**	**GC9a**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**76**	50	1	02/10/2017 11:32
TPH-Motor Oil (C18-C36)	ND	250	1	02/10/2017 11:32

Surrogates	REC (%)	Limits	
C9	99	70-130	02/10/2017 11:32

Analyst(s): TK Analytical Comments: e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	**1702545-014A**	**Water**	**02/09/2017 12:25**	**GC9b**	**133953**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**110**	50	1	02/10/2017 21:33
TPH-Motor Oil (C18-C36)	**280**	250	1	02/10/2017 21:33

Surrogates	REC (%)	Limits	
C9	96	70-130	02/10/2017 21:33

Analyst(s): TK Analytical Comments: e7,e2

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/8/17 - 2/9/17	**BatchID:**	133917
Date Analyzed:	2/8/17 - 2/9/17	**Extraction Method:**	E300.1
Instrument:	IC3	**Analytical Method:**	E300.1
Matrix:	Water	**Unit:**	mg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-133917 1702484-002AMS/MSD

QC Summary Report for E300.1

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Nitrate as N	ND	0.945	0.10	1	-	95	85-115
Nitrate as $NO3^{-}$	ND	4.19	0.45	4.4	-	95	85-115
Nitrite as N	ND	0.973	0.10	1	-	97	85-115
Nitrite as $NO2^{-}$	ND	3.20	0.33	3.3	-	97	85-115
Sulfate	ND	0.950	0.10	1	-	95	85-115
Surrogate Recovery							
Formate	0.1073	0.107		0.10	107	107	85-115

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Nitrate as N	5.05	5.07	1	3.980	107	109	85-115	0.288	15
Nitrate as $NO3^{-}$	22.4	22.4	4.4	17.63	108	109	85-115	0.288	15
Nitrite as N	0.992	0.982	1	ND	99	98	85-115	1.00	15
Nitrite as $NO2^{-}$	3.26	3.23	3.3	ND	99	98	85-115	1.00	15
Sulfate	18.5	18.5	1	17	117,F1	116,F1	85-115	0.0135	15
Surrogate Recovery									
Formate	0.109	0.111	0.10		109	111	85-115	1.62	10

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	10.0	0.50	10	-	100	54-140
Benzene	ND	10.0	0.50	10	-	100	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	39.2	2.0	40	-	98	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	10.3	0.50	10	-	103	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	10.0	0.50	10	-	100	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.89	0.50	10	-	99	66-125
1,1-Dichloroethene	ND	10.2	0.50	10	-	102	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	10.3	0.50	10	-	103	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.5	0.50	10	-	105	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	10.3	0.50	10	-	103	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	10.2	0.50	10	-	102	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	10.5	0.50	10	-	105	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	24.15	24.4		25	97	98	70-130
Toluene-d8	23.12	23.1		25	92	92	70-130
4-BFB	2.55	2.70		2.5	102	108	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.28	9.44	10	ND	93	94	69-139	1.78	20
Benzene	9.56	9.35	10	ND	95	93	69-141	2.19	20
t-Butyl alcohol (TBA)	35.4	38.8	40	ND	89	97	41-152	8.92	20
Chlorobenzene	9.44	9.28	10	ND	94	93	77-120	1.71	20
1,2-Dibromoethane (EDB)	9.38	9.55	10	ND	94	96	76-135	1.75	20
1,2-Dichloroethane (1,2-DCA)	9.09	9.16	10	ND	91	92	73-139	0.740	20
1,1-Dichloroethene	9.31	9.23	10	ND	93	92	59-140	0.821	20
Diisopropyl ether (DIPE)	9.57	9.65	10	ND	96	96	72-140	0	20
Ethyl tert-butyl ether (ETBE)	9.67	9.82	10	ND	97	98	71-140	1.57	20
Methyl-t-butyl ether (MTBE)	9.54	9.81	10	ND	95	98	73-139	2.82	20
Toluene	9.27	9.12	10	ND	93	91	71-128	1.68	20
Trichloroethene	9.67	9.56	10	ND	97	96	64-132	1.19	20
Surrogate Recovery									
Dibromofluoromethane	24.4	24.7	25		98	99	73-131	1.12	20
Toluene-d8	22.9	22.9	25		92	92	72-117	0	20
4-BFB	2.51	2.48	2.5		101	99	74-116	1.51	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134054
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-134054

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-
Surrogate Recovery					
Dibromofluoromethane	26		25	104	70-130
Toluene-d8	25.57		25	102	70-130
4-BFB	2.524		2.5	101	70-130

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134054
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC18	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-134054

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.7	11.6	10	107	116	54-140	8.10	20
Benzene	10.3	10.3	10	103	103	47-158	0	20
t-Butyl alcohol (TBA)	44.0	55.0	40	110	138	42-140	22.2,F2	20
1,2-Dibromoethane (EDB)	10.5	11.5	10	105	115	44-155	9.19	20
1,2-Dichloroethane (1,2-DCA)	10.0	10.5	10	101	105	66-125	4.73	20
Diisopropyl ether (DIPE)	10.9	11.2	10	109	112	57-136	2.70	20
Ethylbenzene	10.7	10.5	10	107	105	60-152	1.71	20
Ethyl tert-butyl ether (ETBE)	10.9	11.5	10	109	115	55-137	5.50	20
Methyl-t-butyl ether (MTBE)	10.2	11.4	10	102	114	53-139	10.9	20
Methylene chloride	7.28	7.31	10	73	73	66-127	0	20
Naphthalene	11.1	13.8	10	111	138, F2	66-127	21.3,F2	20
Toluene	10.6	10.6	10	106	106	52-137	0	20
Xylenes, Total	31.4	30.5	30	105	102	70-130	2.86	20
Surrogate Recovery								
Dibromofluoromethane	26.1	25.8	25	104	103	70-130	1.03	20
Toluene-d8	26.2	26.3	25	105	105	70-130	0	20
4-BFB	2.61	2.45	2.5	104	98	70-130	6.42	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-
Surrogate Recovery					
Dibromofluoromethane	24.15		25	97	70-130
Toluene-d8	23.12		25	92	70-130
4-BFB	2.55		2.5	102	70-130

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.0	-	10	100	-	54-140	-	-
Benzene	10.0	-	10	100	-	47-158	-	-
t-Butyl alcohol (TBA)	39.2	-	40	98	-	42-140	-	-
1,2-Dibromoethane (EDB)	10.0	-	10	100	-	44-155	-	-
1,2-Dichloroethane (1,2-DCA)	9.89	-	10	99	-	66-125	-	-
Diisopropyl ether (DIPE)	10.3	-	10	103	-	57-136	-	-
Ethylbenzene	10.2	-	10	102	-	60-152	-	-
Ethyl tert-butyl ether (ETBE)	10.5	-	10	105	-	55-137	-	-
Methyl-t-butyl ether (MTBE)	10.3	-	10	103	-	53-139	-	-
Methylene chloride	7.23	-	10	72	-	66-127	-	-
Naphthalene	10.6	-	10	106	-	66-127	-	-
Toluene	10.2	-	10	102	-	52-137	-	-
Xylenes, Total	30.4	-	30	101	-	70-130	-	-
Surrogate Recovery								
Dibromofluoromethane	24.4	-	25	98	-	70-130	-	-
Toluene-d8	23.1	-	25	92	-	70-130	-	-
4-BFB	2.70	-	2.5	108	-	70-130	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.28	9.44	10	ND	93	94	69-139	1.78	20
Benzene	9.56	9.35	10	ND	95	93	69-141	2.19	20
t-Butyl alcohol (TBA)	35.4	38.8	40	ND	89	97	41-152	8.92	20
1,2-Dibromoethane (EDB)	9.38	9.55	10	ND	94	96	76-135	1.75	20
1,2-Dichloroethane (1,2-DCA)	9.09	9.16	10	ND	91	92	73-139	0.740	20
Diisopropyl ether (DIPE)	9.57	9.65	10	ND	96	96	72-140	0	20
Ethylbenzene	9.42	9.18	10	ND	94	92	73-128	2.64	20
Ethyl tert-butyl ether (ETBE)	9.67	9.82	10	ND	97	98	71-140	1.57	20
Methyl-t-butyl ether (MTBE)	9.54	9.81	10	ND	95	98	73-139	2.82	20
Methylene chloride	6.14	6.09	10	ND	61,F1	61,F1	74-128	0	20
Naphthalene	9.10	9.59	10	ND	91	96	54-148	5.21	20
Toluene	9.27	9.12	10	ND	93	91	71-128	1.68	20
Xylenes, Total	28.9	27.7	30	ND	96	92	70-130	4.24	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17	**BatchID:**	134078
Date Analyzed:	2/10/17	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-134078 1702568-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	24.4	24.7	25		98	99	73-131	1.12	20
Toluene-d8	22.9	22.9	25		92	92	72-117	0	20
4-BFB	2.51	2.48	2.5		101	99	74-116	1.51	20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/13/17	**BatchID:**	134057
Date Analyzed:	2/13/17	**Extraction Method:**	SM2320 B-1997
Instrument:	Titrino	**Analytical Method:**	SM2320 B
Matrix:	Water	**Unit:**	mg $CaCO_3$/L
Project:	Owens Brockway Glass Plant		

QC Summary Report for Alkalinity

SampID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1702545-005D	579	1	560	1	3.32	<20

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/10/17 - 2/11/17	**BatchID:**	134049
Date Analyzed:	2/10/17 - 2/11/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134049 1702590-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	59.5	40	60	-	99	85-112
MTBE	ND	9.26	5.0	10	-	93	74-127
Benzene	ND	9.47	0.50	10	-	95	81-124
Toluene	ND	9.78	0.50	10	-	98	79-131
Ethylbenzene	ND	10.1	0.50	10	-	101	86-127
Xylenes	ND	31.6	1.5	30	-	105	87-133
Surrogate Recovery							
aaa-TFT	10.62	10.1		10	106	101	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	60.8	60.8	60	ND	101	101	85-113	0	20
MTBE	9.95	9.93	10	ND	100	99	73-120	0.214	20
Benzene	9.82	9.91	10	ND	98	99	84-121	0.966	20
Toluene	10.1	10.2	10	ND	101	101	86-125	0	20
Ethylbenzene	10.4	10.3	10	ND	104	103	93-124	0.692	20
Xylenes	32.6	32.3	30	ND	109	108	93-130	1.10	20
Surrogate Recovery									
aaa-TFT	10.1	10.2	10		101	102	89-115	0.766	20

(Cont.)

NELAP 4033ORELAP

QA/QC Officer

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/11/17	**BatchID:**	134050
Date Analyzed:	2/11/17	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134050 1702639-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	52.0	40	60	-	87	85-112
MTBE	ND	8.72	5.0	10	-	87	74-127
Benzene	ND	10.0	0.50	10	-	100	81-124
Toluene	ND	10.2	0.50	10	-	102	79-131
Ethylbenzene	ND	10.5	0.50	10	-	105	86-127
Xylenes	ND	33.0	1.5	30	-	110	87-133
Surrogate Recovery							
aaa-TFT	10.93	10.7		10	109	107	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	52.4	50.6	60	ND	87	84,F1	85-113	3.58	20
MTBE	9.16	8.58	10	ND	92	86	73-120	6.56	20
Benzene	10.3	9.76	10	ND	103	98	84-121	5.37	20
Toluene	10.5	9.98	10	ND	105	100	86-125	5.52	20
Ethylbenzene	10.5	10.2	10	ND	105	102	93-124	2.84	20
Xylenes	32.3	31.6	30	ND	107	105	93-130	2.15	20
Surrogate Recovery									
aaa-TFT	10.7	10.7	10		107	107	89-115	0	20

(Cont.)

NELAP 4033ORELAP

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/11/17 - 2/12/17	**BatchID:**	134053
Date Analyzed:	2/11/17 - 2/12/17	**Extraction Method:**	SW5030B
Instrument:	GC3, GC7	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS-134053 1702627-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	55.6	40	60	-	93	85-112
MTBE	ND	9.00	5.0	10	-	90	74-127
Benzene	ND	9.77	0.50	10	-	98	81-124
Toluene	ND	10.0	0.50	10	-	100	79-131
Ethylbenzene	ND	10.2	0.50	10	-	102	86-127
Xylenes	ND	31.9	1.5	30	-	106	87-133
Surrogate Recovery							
aaa-TFT	10.38	10.2		10	104	102	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	58.2	59.3	60	ND	97	99	85-113	1.89	20
MTBE	9.64	9.52	10	ND	96	95	73-120	1.16	20
Benzene	11.1	11.1	10	ND	111	111	84-121	0	20
Toluene	11.7	11.4	10	ND	115	112	86-125	2.23	20
Ethylbenzene	11.3	11.4	10	ND	113	114	93-124	1.51	20
Xylenes	35.0	35.1	30	ND	117	117	93-130	0	20
Surrogate Recovery									
aaa-TFT	10.8	10.7	10		108	107	89-115	1.26	20

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Quality Control Report

Client: CKG Environmental
Date Prepared: 2/9/17
Date Analyzed: 2/9/17
Instrument: MICROBIOLOGY
Matrix: Water
Project: Owens Brockway Glass Plant

WorkOrder: 1702545
BatchID: 133954
Extraction Method: SM9215B
Analytical Method: SM9215B

QC Summary Report for Heterotrophic Bacteria

Lab ID	Analyte	Reporting Units	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1702545-001E	Heterotrophic Bacteria	CFU/ml	3.0	1	3.0	1	0	<50

Client: CKG Environmental
Date Prepared: 2/9/17
Date Analyzed: 2/9/17
Instrument: MICROBIOLOGY
Matrix: Water
Project: Owens Brockway Glass Plant

WorkOrder: 1702545
BatchID: 133955
Extraction Method: SM9215B
Analytical Method: SM9215B

QC Summary Report for Heterotrophic Bacteria

Lab ID	Analyte	Reporting Units	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1702545-011E	Heterotrophic Bacteria	CFU/ml	34,000	1000	36,000	1000	5.71	<50

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Quality Control Report

Client:	CKG Environmental	**WorkOrder:**	1702545
Date Prepared:	2/9/17	**BatchID:**	133953
Date Analyzed:	2/10/17	**Extraction Method:**	SW3510C/3630C
Instrument:	GC9a	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	Owens Brockway Glass Plant	**Sample ID:**	MB/LCS/LCSD-133953

QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	621		625	99	65-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1020	1020	1000	102	102	61-157	0	30
Surrogate Recovery								
C9	616	620	625	98	99	65-122	0.751	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1702545 **ClientCode: CKGS**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christina Kennedy
CKG Environmental
P.O. Box 246
St. Helena, CA 94574
(707) 967-8080 FAX: (707) 967-8080

Email: ckennedy@geologist.com
cc/3rd Party:
PO:
ProjectNo: Owens Brockway Glass Plant

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

Requested TAT: 5 days;

Date Received: **02/09/2017**
Date Logged: **02/09/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1702545-001	MW-2R	Water	2/9/2017 13:00	☐	C		B	D	A	E	B	A				
1702545-002	MW-3R	Water	2/9/2017 13:15	☐	C		B	D	A	E		A				
1702545-003	MW-5	Water	2/9/2017 12:45	☐	C		B	D	A	E		A				
1702545-004	MW-6	Water	2/9/2017 13:00	☐	C		B	D	A	E		A				
1702545-005	MW-7	Water	2/9/2017 12:20	☐	C		B	D	A	E		A				
1702545-006	MW-8	Water	2/9/2017 13:35	☐	C		B	D	A	E		A				
1702545-007	MW-10	Water	2/9/2017 12:40	☐	C		B	D	A	E		A				
1702545-008	MW-13	Water	2/9/2017 13:00	☐	C	B		D	A	E		A				
1702545-009	MW-15	Water	2/9/2017 13:30	☐	C		B	D	A	E		A				
1702545-010	MW-16	Water	2/9/2017 13:50	☐	C	B		D	A	E		A				
1702545-011	MW-17	Water	2/9/2017 12:30	☐	C		B	D	A	E		A				
1702545-012	MW-19	Water	2/9/2017 12:45	☐	C		B	D	A	E		A				
1702545-013	MW-20	Water	2/9/2017 12:10	☐	C	B		D	A	E		A				
1702545-014	MW-21	Water	2/9/2017 12:25	☐	C		B	D	A	E		A				
1702545-015	TB-1	Water	2/9/2017 08:30	☐		A										

Test Legend:

1	300_1_W	2	8260B_W	3	8260VOC_W	4	Alk_W
5	G-MBTEX_W	6	HPC-POUR_DWW	7	PREDF REPORT	8	TPH(DMO)WSG_W
9		10		11		12	

Prepared by: Jena Alfaro

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A contain testgroup Multi RangeWSG_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: Owens Brockway Glass Plant
Comments:

Work Order: 1702545
QC Level: LEVEL 2
Date Logged: 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-001A	MW-2R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:00	5 days	None	☐	
1702545-001B	MW-2R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 13:00	5 days	None	☐	
1702545-001C	MW-2R	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	None	☐	
1702545-001D	MW-2R	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	None	☐	
1702545-001E	MW-2R	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:00	5 days	None	☐	
1702545-002A	MW-3R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:15	5 days	Present	☐	
1702545-002B	MW-3R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 13:15	5 days	Present	☐	
1702545-002C	MW-3R	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:15	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL **Project:** Owens Brockway Glass Plant **Work Order:** 1702545
Client Contact: Christina Kennedy **QC Level:** LEVEL 2
Contact's Email: ckennedy@geologist.com **Comments:** **Date Logged:** 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-002D	MW-3R	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:15	5 days	Present	☐	
1702545-002E	MW-3R	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:15	5 days	Present	☐	
1702545-003A	MW-5	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:45	5 days	2%+	☐	
1702545-003B	MW-5	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:45	5 days	2%+	☐	
1702545-003C	MW-5	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:45	5 days	2%+	☐	
1702545-003D	MW-5	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:45	5 days	2%+	☐	
1702545-003E	MW-5	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:45	5 days	2%+	☐	
1702545-004A	MW-6	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:00	5 days	10%+	☐	
1702545-004B	MW-6	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 13:00	5 days	10%+	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL **Project:** Owens Brockway Glass Plant **Work Order:** 1702545
Client Contact: Christina Kennedy **QC Level:** LEVEL 2
Contact's Email: ckennedy@geologist.com **Comments:** **Date Logged:** 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-004C	MW-6	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	10%+	☐	
1702545-004D	MW-6	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	10%+	☐	
1702545-004E	MW-6	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:00	5 days	10%+	☐	
1702545-005A	MW-7	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:20	5 days	10%+	☐	
1702545-005B	MW-7	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:20	5 days	10%+	☐	
1702545-005C	MW-7	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:20	5 days	10%+	☐	
1702545-005D	MW-7	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:20	5 days	10%+	☐	
1702545-005E	MW-7	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:20	5 days	10%+	☐	
1702545-006A	MW-8	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:35	5 days	None	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: Owens Brockway Glass Plant
Comments:

Work Order: 1702545
QC Level: LEVEL 2
Date Logged: 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-006B	MW-8	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 13:35	5 days	None	☐	
1702545-006C	MW-8	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:35	5 days	None	☐	
1702545-006D	MW-8	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:35	5 days	None	☐	
1702545-006E	MW-8	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:35	5 days	None	☐	
1702545-007A	MW-10	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:40	5 days	Present	☐	
1702545-007B	MW-10	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:40	5 days	Present	☐	
1702545-007C	MW-10	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:40	5 days	Present	☐	
1702545-007D	MW-10	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:40	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: Owens Brockway Glass Plant
Comments:

Work Order: 1702545
QC Level: LEVEL 2
Date Logged: 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-007E	MW-10	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:40	5 days	Present	☐	
1702545-008A	MW-13	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:00	5 days	Present	☐	
1702545-008B	MW-13	Water	SW8260B (VOCs)	4	VOA w/ HCl	☐	2/9/2017 13:00	5 days	Present	☐	
1702545-008C	MW-13	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	Present	☐	
1702545-008D	MW-13	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:00	5 days	Present	☐	
1702545-008E	MW-13	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:00	5 days	Present	☐	
1702545-009A	MW-15	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:30	5 days	Present	☐	
1702545-009B	MW-15	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 13:30	5 days	Present	☐	
1702545-009C	MW-15	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:30	5 days	Present	☐	
1702545-009D	MW-15	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:30	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCampbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL **Project:** Owens Brockway Glass Plant **Work Order:** 1702545
Client Contact: Christina Kennedy **QC Level:** LEVEL 2
Contact's Email: ckennedy@geologist.com **Comments:** **Date Logged:** 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-009E	MW-15	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:30	5 days	Present	☐	
1702545-010A	MW-16	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 13:50	5 days	1%+	☐	
1702545-010B	MW-16	Water	SW8260B (VOCs)	4	VOA w/ HCl	☐	2/9/2017 13:50	5 days	1%+	☐	
1702545-010C	MW-16	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 13:50	5 days	1%+	☐	
1702545-010D	MW-16	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 13:50	5 days	1%+	☐	
1702545-010E	MW-16	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 13:50	5 days	1%+	☐	
1702545-011A	MW-17	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:30	5 days	Present	☐	
1702545-011B	MW-17	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:30	5 days	Present	☐	
1702545-011C	MW-17	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:30	5 days	Present	☐	
1702545-011D	MW-17	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:30	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL
Client Contact: Christina Kennedy
Contact's Email: ckennedy@geologist.com

Project: Owens Brockway Glass Plant
Comments:

Work Order: 1702545
QC Level: LEVEL 2
Date Logged: 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-011E	MW-17	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:30	5 days	Present	☐	
1702545-012A	MW-19	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:45	5 days	Trace	☐	
1702545-012B	MW-19	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:45	5 days	Trace	☐	
1702545-012C	MW-19	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:45	5 days	Trace	☐	
1702545-012D	MW-19	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:45	5 days	Trace	☐	
1702545-012E	MW-19	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:45	5 days	Trace	☐	
1702545-013A	MW-20	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:10	5 days	Present	☐	
1702545-013B	MW-20	Water	SW8260B (VOCs)	4	VOA w/ HCl	☐	2/9/2017 12:10	5 days	Present	☐	
1702545-013C	MW-20	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:10	5 days	Present	☐	
1702545-013D	MW-20	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:10	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL **Project:** Owens Brockway Glass Plant **Work Order:** 1702545
Client Contact: Christina Kennedy **QC Level:** LEVEL 2
Contact's Email: ckennedy@geologist.com **Comments:** **Date Logged:** 2/9/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1702545-013E	MW-20	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:10	5 days	Present	☐	
1702545-014A	MW-21	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	☐	2/9/2017 12:25	5 days	Present	☐	
1702545-014B	MW-21	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	4	VOA w/ HCl	☐	2/9/2017 12:25	5 days	Present	☐	
1702545-014C	MW-21	Water	E300.1 (Inorganic Anions) <Nitrate & Nitrite as N, Nitrate as N, Nitrate as $NO3^{-}$, Nitrite as N, Nitrite as $NO2^{-}$, Sulfate>	1	125mL HDPE, unprsv.	☐	2/9/2017 12:25	5 days	Present	☐	
1702545-014D	MW-21	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	☐	2/9/2017 12:25	5 days	Present	☐	
1702545-014E	MW-21	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	☐	2/9/2017 12:25	5 days	Present	☐	
1702545-015A	TB-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	2/9/2017 8:30	5 days	None	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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1702545

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 170209-1161

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 Attn: Chris Kennedy
808 Zinfandel Lane, St Helena, CA 94574

Dissolved product in samples MW-2 and MW-6
Please provide EDF and PDF of results

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-g (8015)	BTEX, MTBE, Naphthalene, 1,2-DCA, EDB (8260B)	TPH-d, TPH-mo w/silica gel clean up (8015)	Nitrate, Nitrite, Sulfate (300.0)	Alkalinity (310.1)	Heterotrophic Plate Count (SM 9215) -SHORT HOL	VOCs (8260)		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2R *	2-9-17	1300	W	11	mix		X	X	X	X	X	X			*Labled MW-2			
MW-3R		1315		11			X	X	X	X	X	X						
2% MW-5		1245		11			X	X	X	X	X	X						
10% MW-6		1300		11			X	X	X	X	X	X						
10% MW-7 *		1220		11			X	X	X	X	X	X			*1 VOA Labled MW-20			
MW-8		1335		11			X	X	X	X	X	X						
MW-10		1240		11			X	X	X	X	X	X						
MW-13		1300		11			X	X	X	X	X	X	X					
MW-15		1330		11			X	X	X	X	X	X						
MW-16		1350		11			X	X	X	X	X	X	X					

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	2-9-17	1350	Kris Kubota, Darren Bush, David Vogler, Colin Rowland

RESULTS NEEDED NO LATER THAN: Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	2-9-17	1430	MV	2-9-17	1430
MOISES	2-9-17	1540		2/9/17	1540

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 # 170209 ISK1

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 Attn: Chris Kennedy
808 Zinfandel Lane, St Helena, CA 94574

Dissolved product in samples MW-2 and MW-6
Please provide EDF and PDF of results

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-g (8015)	BTEX, MTBE, Naphthalene, 1,2-DCA, EDB (8260B)	TPH-d, TPH-mo w/silica gel clean up (8015)	Nitrate, Nitrite, Sulfate (300.0)	Alkalinity (310.1)	Heterotrophic Plate Count (SM 9215) -SHORT HOL	VOCs (8260)		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-17	2-9-17	1230	W	11	Mix		X	X	X	X	X	X						
MW-19		1245		11			X	X	X	X	X	X						
MW-20		1210		11			X	X	X	X	X	X	X					
MW-21		1225		11			X	X	X	X	X	X						
TB-1		0830			VOA								X					

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	2-9-17	1350	Kris Rubalcava, Darren Sato David Vasquez, Colin Newland	Per Client

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
MZ	2-9-17	1430		2-9-17	1430
Moises	2-9-17	1540		2/9/17	1540

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

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Sample Receipt Checklist

Client Name: **CKG Environmental**
Project Name: **Owens Brockway Glass Plant**

WorkOrder №: **1702545** Matrix: Water
Carrier: Moises Vasquez (contract courier)

Date and Time Received **2/9/2017 15:40**
Date Logged: **2/9/2017**
Received by: Jena Alfaro
Logged by: Jena Alfaro

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature	Temp: 4.1°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA ☑

Comments:

APPENDIX C

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
1/2/2017 through 1/6/2017

	Date	1/2/2017		1/3/2017		1/4/2017		1/5/2017		1/6/2017			
	Time	Holiday		3:15 PM		9:15 AM		3:15 PM		12:15 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	5.1	10.0	5.2	11.0	5.5	11.0	4.9	11.0	5.2	10.8
	3	-	-	5.9	13.0	6.2	13.0	6.0	13.0	6.1	13.0	6.1	13.0
	5	-	-	3.0	13.0	3.1	13.0	3.1	13.0	2.9	13.0	3.0	13.0
	12	-	-	7.6	11.0	7.8	11.0	7.8	11.0	7.9	11.0	7.8	11.0
	13	-	-	6.3	10.0	6.5	10.0	6.5	10.0	5.2	9.0	6.1	9.8
	15	-	-	14.2	12.0	14.2	13.0	14.2	13.0	14.1	12.0	14.2	12.5
	Total	**0.0**	**0.0**	**42.1**	**69.0**	**43.0**	**71.0**	**43.1**	**71.0**	**41.1**	**69.0**	**42.3**	**70.0**
2	1B	-	-	4.2	7.0	4.2	7.0	4.5	7.0	4.6	7.0	4.4	7.0
	4	-	-	7.6	11.0	7.6	11.0	7.5	11.0	7.8	11.0	7.6	11.0
	8	-	-	6.4	10.0	6.5	10.0	6.1	10.0	6.4	11.0	6.4	10.3
	10	-	-	9.5	6.0	8.3	7.0	8.5	7.0	8.1	7.0	8.6	6.8
	11	-	-	8.2	9.0	8.1	9.0	8.1	9.0	8.2	9.0	8.2	9.0
	14	-	-	7.4	6.0	7.4	7.0	7.3	7.0	7.4	7.0	7.4	6.8
	16	-	-	6.9	12.0	7.1	12.0	7.1	12.0	6.8	13.0	7.0	12.3
	Total	**0.0**	**0.0**	**50.2**	**61.0**	**49.2**	**63.0**	**49.1**	**63.0**	**49.3**	**65.0**	**49.5**	**63.0**
3	2A	-	-	4.9	7.0	4.8	7.0	4.8	7.0	4.8	7.0	4.8	7.0
	2B	-	-	3.5	10.0	4.1	10.0	4.0	10.0	3.6	10.0	3.8	10.0
	6A	-	-	7.1	9.0	7.2	9.0	7.1	9.0	7.4	9.0	7.2	9.0
	6B	-	-	9.1	13.0	8.7	13.0	8.9	13.0	8.9	14.0	8.9	13.3
	7	-	-	7.9	7.0	7.7	7.0	7.5	7.0	7.9	7.0	7.8	7.0
	9	-	-	10.0	3.0	9.7	4.0	9.5	4.0	10.2	3.0	9.9	3.5
	17	-	-	9.0	8.0	6.6	8.0	6.5	8.0	10.0	8.0	8.0	8.0
	Total	**0.0**	**0.0**	**51.5**	**57.0**	**48.8**	**58.0**	**48.3**	**58.0**	**52.8**	**58.0**	**50.4**	**57.8**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
1/9/2017 through 1/13/2017

	Date	1/9/2017		1/10/2017		1/11/2017		1/12/2017		1/13/2017			
	Time	System Error		9:15 AM		11:30 AM		4:45 PM		9:15 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	4.1	11.0	3.2	12.0	3.4	12.0	3.5	12.0	3.6	11.8
	3	-	-	6.2	13.0	6.0	13.0	5.8	13.0	5.5	13.0	5.9	13.0
	5	-	-	3.0	14.0	2.7	14.0	1.7	14.0	1.5	13.0	2.2	13.8
	12	-	-	7.5	12.0	7.3	12.0	7.6	11.0	8.0	11.0	7.6	11.5
	13	-	-	6.5	10.0	5.9	10.0	4.5	9.0	4.5	9.0	5.4	9.5
	15	-	-	14.1	13.0	14.0	13.0	14.3	13.0	14.2	13.0	14.2	13.0
	Total	**0.0**	**0.0**	**41.4**	**73.0**	**39.1**	**74.0**	**37.3**	**72.0**	**37.2**	**71.0**	**38.8**	**72.5**
2	1B	-	-	3.9	7.0	3.3	8.0	3.4	7.0	3.5	7.0	3.5	7.3
	4	-	-	7.4	11.0	7.5	11.0	7.4	11.0	7.4	11.0	7.4	11.0
	8	-	-	5.5	10.0	5.5	12.0	5.1	12.0	5.0	12.0	5.3	11.5
	10	-	-	7.5	7.0	7.7	7.0	7.5	8.0	8.0	8.0	7.7	7.5
	11	-	-	7.8	9.0	7.9	9.0	7.9	9.0	8.0	9.0	7.9	9.0
	14	-	-	7.0	8.0	7.1	7.0	7.1	7.0	7.3	7.0	7.1	7.3
	16	-	-	6.7	12.0	6.1	13.0	6.0	13.0	6.2	13.0	6.3	12.8
	Total	**0.0**	**0.0**	**45.8**	**64.0**	**45.1**	**67.0**	**44.4**	**67.0**	**45.4**	**67.0**	**45.2**	**66.3**
3	2A	-	-	4.4	7.0	4.6	8.0	4.9	8.0	5.0	8.0	4.7	7.8
	2B	-	-	2.5	10.0	1.8	11.0	1.6	11.0	1.5	11.0	1.9	10.8
	6A	-	-	6.7	9.0	6.8	10.0	6.8	10.0	7.1	10.0	6.9	9.8
	6B	-	-	8.5	13.0	8.8	14.0	8.7	14.0	8.5	14.0	8.6	13.8
	7	-	-	7.8	7.0	7.9	7.0	7.8	8.0	7.5	8.0	7.8	7.5
	9	-	-	8.9	3.0	9.0	5.0	9.1	5.0	9.0	5.0	9.0	4.5
	17	-	-	12.5	8.0	13.2	10.0	9.2	9.0	16.2	9.0	12.8	9.0
	Total	**0.0**	**0.0**	**51.3**	**57.0**	**52.1**	**65.0**	**48.1**	**65.0**	**54.8**	**65.0**	**51.6**	**63.0**

Notes: Monthly O&M performed on 1/11/2017. System functioning well.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
1/16/2017 through 1/20/2017

	Date	1/16/2017		1/17/2017		1/18/2017		1/19/2017		1/20/2017			
	Time	Out of Office		4:15 PM		4:15 PM		9:30 AM		9:30 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	4.7	11.0	4.5	11.0	4.2	11.0	4.0	11.0	4.4	11.0
	3	-	-	5.8	13.0	5.5	12.0	5.8	13.0	5.8	13.0	5.7	12.8
	5	-	-	2.0	13.0	1.7	13.0	1.9	13.0	2.3	13.0	2.0	13.0
	12	-	-	7.9	9.0	8.0	9.0	7.8	11.0	7.8	11.0	7.9	10.0
	13	-	-	7.0	11.0	6.8	11.0	6.4	10.0	6.5	10.0	6.7	10.5
	15	-	-	14.7	12.0	14.0	12.0	14.5	13.0	14.3	13.0	14.4	12.5
	Total	**0.0**	**0.0**	**42.1**	**69.0**	**40.5**	**68.0**	**40.6**	**71.0**	**40.7**	**71.0**	**41.0**	**69.8**
2	1B	-	-	4.5	7.0	4.7	7.0	4.4	7.0	4.5	7.0	4.5	7.0
	4	-	-	7.6	10.0	7.5	10.0	7.5	11.0	7.5	11.0	7.5	10.5
	8	-	-	5.1	12.0	5.0	12.0	5.1	12.0	5.3	12.0	5.1	12.0
	10	-	-	7.5	8.0	7.6	8.0	7.6	8.0	8.1	8.0	7.7	8.0
	11	-	-	8.1	9.0	8.0	9.0	8.1	9.0	8.1	9.0	8.1	9.0
	14	-	-	7.3	6.0	7.5	6.0	7.3	7.0	7.5	7.0	7.4	6.5
	16	-	-	6.4	13.0	6.5	13.0	6.9	12.0	7.0	12.0	6.7	12.5
	Total	**0.0**	**0.0**	**46.5**	**65.0**	**46.8**	**65.0**	**46.9**	**66.0**	**48.0**	**66.0**	**47.1**	**65.5**
3	2A	-	-	5.1	8.0	5.0	8.0	5.0	9.0	5.2	9.0	5.1	8.5
	2B	-	-	3.0	11.0	3.2	11.0	3.2	11.0	3.0	11.0	3.1	11.0
	6A	-	-	7.1	9.0	7.1	9.0	7.1	9.0	7.2	9.0	7.1	9.0
	6B	-	-	8.1	15.0	8.5	15.0	8.2	15.0	8.0	15.0	8.2	15.0
	7	-	-	7.8	8.0	7.5	8.0	7.8	8.0	7.8	8.0	7.7	8.0
	9	-	-	9.3	5.0	9.1	5.0	9.2	5.0	9.2	5.0	9.2	5.0
	17	-	-	18.8	9.0	18.5	9.0	8.0	8.0	9.0	8.0	13.6	8.5
	Total	**0.0**	**0.0**	**59.2**	**65.0**	**58.9**	**65.0**	**48.5**	**65.0**	**49.4**	**65.0**	**54.0**	**65.0**

Notes: Monthly O&M performed on 1/11/2017. System functioning well.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
1/23/2017 through 1/27/2017

	Date	1/23/2017		1/24/2017		1/25/2017		1/26/2017		1/27/2017			
	Time	8:45 AM		3:30 PM		4:15 PM		3:30 PM		8:45 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.7	12.0	4.1	12.0	4.1	12.0	4.0	11.0	4.2	11.0	4.0	11.6
	3	5.8	13.0	6.0	13.0	6.2	13.0	6.0	13.0	5.9	13.0	6.0	13.0
	5	2.7	13.0	2.8	13.0	3.0	13.0	2.7	12.0	2.8	12.0	2.8	12.6
	12	7.8	12.0	8.0	11.0	8.0	11.0	7.9	11.0	7.9	11.0	7.9	11.2
	13	4.8	9.0	6.9	9.0	6.9	9.0	5.1	9.0	5.1	9.0	5.8	9.0
	15	14.5	13.0	14.7	13.0	14.5	13.0	14.5	13.0	14.4	12.0	14.5	12.8
	Total	**39.3**	**72.0**	**42.5**	**71.0**	**42.7**	**71.0**	**40.2**	**69.0**	**40.3**	**68.0**	**41.0**	**70.2**
2	1B	4.5	7.0	4.8	7.0	4.6	7.0	4.2	7.0	4.6	6.0	4.5	6.8
	4	7.6	11.0	7.8	11.0	7.6	11.0	7.4	10.0	7.8	10.0	7.6	10.6
	8	5.5	12.0	5.1	13.0	5.4	12.0	5.1	12.0	5.4	12.0	5.3	12.2
	10	8.2	7.0	7.9	8.0	7.8	8.0	7.9	7.0	7.7	8.0	7.9	7.6
	11	8.1	10.0	8.3	9.0	8.2	9.0	8.0	9.0	8.3	9.0	8.2	9.2
	14	7.3	8.0	7.4	7.0	7.3	7.0	7.2	7.0	7.3	7.0	7.3	7.2
	16	6.7	12.0	6.6	13.0	6.6	12.0	6.3	12.0	6.5	12.0	6.5	12.2
	Total	**47.9**	**67.0**	**47.9**	**68.0**	**47.5**	**66.0**	**46.1**	**64.0**	**47.6**	**64.0**	**47.4**	**65.8**
3	2A	5.3	8.0	5.6	9.0	5.7	7.0	5.2	7.0	5.4	7.0	5.4	7.6
	2B	2.9	11.0	3.5	11.0	3.5	11.0	3.3	11.0	3.8	11.0	3.4	11.0
	6A	7.5	9.0	7.7	9.0	8.0	9.0	7.9	9.0	7.8	8.0	7.8	8.8
	6B	7.9	16.0	8.0	15.0	8.5	15.0	7.8	15.0	7.8	15.0	8.0	15.2
	7	7.9	8.0	8.0	8.0	8.0	8.0	7.7	8.0	7.9	8.0	7.9	8.0
	9	9.2	6.0	9.1	6.0	8.7	6.0	8.6	5.0	9.0	5.0	8.9	5.6
	17	10.1	9.0	13.2	8.0	7.9	9.0	9.6	9.0	9.7	9.0	10.1	8.8
	Total	**50.8**	**67.0**	**55.1**	**66.0**	**50.3**	**65.0**	**50.1**	**64.0**	**51.4**	**63.0**	**51.5**	**65.0**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
1/30/2017 through 2/3/2017

	Date	1/30/2017		1/31/2017		2/1/2017		2/2/2017		2/3/2017			
	Time	OOF		11:00 AM		8:45 AM		3:30 PM		8:45 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	3.5	11.0	4.3	11.0	4.5	11.0	4.8	11.0	4.3	11.0
	3	-	-	5.8	12.0	5.4	13.0	5.3	13.0	5.5	13.0	5.5	12.8
	5	-	-	3.0	12.0	2.1	12.0	1.9	12.0	2.1	12.0	2.3	12.0
	12	-	-	7.7	11.0	7.8	11.0	7.5	10.0	7.7	10.0	7.7	10.5
	13	-	-	5.3	9.0	6.7	9.0	6.5	9.0	5.3	9.0	6.0	9.0
	15	-	-	14.7	12.0	14.7	12.0	14.7	12.0	14.5	12.0	14.7	12.0
	Total	**0.0**	**0.0**	**40.0**	**67.0**	**41.0**	**68.0**	**40.4**	**67.0**	**39.9**	**67.0**	**40.3**	**67.3**
2	1B	-	-	4.0	6.0	4.4	6.0	4.5	6.0	4.3	3.0	4.3	5.3
	4	-	-	7.5	10.0	7.5	10.0	7.5	10.0	7.7	10.0	7.6	10.0
	8	-	-	5.5	10.0	5.3	12.0	5.5	12.0	5.6	12.0	5.5	11.5
	10	-	-	7.3	8.0	7.4	8.0	7.3	8.0	7.3	8.0	7.3	8.0
	11	-	-	8.1	8.0	8.1	9.0	8.0	9.0	8.1	10.0	8.1	9.0
	14	-	-	7.1	6.0	7.1	7.0	7.5	7.0	7.5	7.0	7.3	6.8
	16	-	-	6.1	12.0	6.4	12.0	6.2	12.0	6.0	12.0	6.2	12.0
	Total	**0.0**	**0.0**	**45.6**	**60.0**	**46.2**	**64.0**	**46.5**	**64.0**	**46.5**	**62.0**	**46.2**	**62.5**
3	2A	-	-	5.2	7.0	5.1	7.0	5.3	7.0	5.5	7.0	5.3	7.0
	2B	-	-	3.8	11.0	3.7	10.0	3.8	10.0	3.5	10.0	3.7	10.3
	6A	-	-	7.8	8.0	7.8	8.0	8.0	8.0	8.0	8.0	7.9	8.0
	6B	-	-	7.6	15.0	7.6	15.0	7.5	15.0	7.7	15.0	7.6	15.0
	7	-	-	7.8	8.0	7.8	7.0	7.5	7.0	7.1	7.0	7.6	7.3
	9	-	-	8.1	5.0	8.7	5.0	8.5	5.0	8.6	5.0	8.5	5.0
	17	-	-	16.6	8.0	9.4	9.0	9.5	9.0	9.1	9.0	11.2	8.8
	Total	**0.0**	**0.0**	**56.9**	**62.0**	**50.1**	**61.0**	**50.1**	**61.0**	**49.5**	**61.0**	**51.7**	**61.3**

OOF = Out of Office

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
2/6/2017 through 2/10/2017

	Date	2/6/2017		2/7/2017		2/8/2017		2/9/2017		2/10/2017			
	Time	O.O.F.		1:15 PM		11:00 AM		Panel Timeout		9:30 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	3.4	12.0	3.9	11.0	-	-	3.5	12.0	3.6	11.7
	3	-	-	5.6	13.0	6.0	13.0	-	-	5.8	13.0	5.8	13.0
	5	-	-	1.9	12.0	2.2	12.0	-	-	2.4	13.0	2.2	12.3
	12	-	-	7.5	11.0	7.6	12.0	-	-	7.8	11.0	7.6	11.3
	13	-	-	5.8	10.0	5.3	9.0	-	-	5.4	8.0	5.5	9.0
	15	-	-	14.9	13.0	15.0	13.0	-	-	14.9	13.0	14.9	13.0
	Total	**0.0**	**0.0**	**39.1**	**71.0**	**40.0**	**70.0**	**0.0**	**0.0**	**39.8**	**70.0**	**39.6**	**70.3**
2	1B	-	-	4.6	7.0	4.1	7.0	-	-	4.5	7.0	4.4	7.0
	4	-	-	7.9	11.0	7.7	10.0	-	-	7.8	10.0	7.8	10.3
	8	-	-	5.1	14.0	4.9	13.0	-	-	5.1	13.0	5.0	13.3
	10	-	-	7.4	10.0	7.2	9.0	-	-	7.3	9.0	7.3	9.3
	11	-	-	8.2	10.0	8.0	9.0	-	-	8.3	9.0	8.2	9.3
	14	-	-	7.3	7.0	7.2	7.0	-	-	7.4	6.0	7.3	6.7
	16	-	-	6.9	13.0	6.5	12.0	-	-	6.6	13.0	6.7	12.7
	Total	**0.0**	**0.0**	**47.4**	**72.0**	**45.6**	**67.0**	**0.0**	**0.0**	**47.0**	**67.0**	**46.7**	**68.7**
3	2A	-	-	5.2	8.0	5.1	8.0	-	-	5.6	8.0	5.3	8.0
	2B	-	-	4.2	11.0	4.0	11.0	-	-	3.9	11.0	4.0	11.0
	6A	-	-	8.0	8.0	8.1	8.0	-	-	8.3	8.0	8.1	8.0
	6B	-	-	7.2	16.0	7.2	16.0	-	-	6.2	18.0	6.9	16.7
	7	-	-	7.9	8.0	7.9	8.0	-	-	8.1	8.0	8.0	8.0
	9	-	-	9.1	5.0	8.8	5.0	-	-	9.3	6.0	9.1	5.3
	17	-	-	9.4	9.0	10.0	10.0	-	-	8.0	9.0	9.1	9.3
	Total	**0.0**	**0.0**	**51.0**	**65.0**	**51.1**	**66.0**	**0.0**	**0.0**	**49.4**	**68.0**	**50.5**	**66.3**

O.O.F. = Out of Office

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
2/13/2017 through 2/17/2017

	Date	2/13/2017		2/14/2017		2/15/2017		2/16/2017		2/17/2017			
	Time	9:30 AM		9:30 AM		3:30 PM		9:30 AM		9:30 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.4	11.0	3.5	11.0	4.1	11.0	4.2	11.0	4.5	12.0	3.9	11.2
	3	5.6	13.0	5.5	13.0	5.9	13.0	5.1	13.0	5.5	13.0	5.5	13.0
	5	2.2	12.0	2.0	12.0	1.9	13.0	1.8	13.0	2.1	12.0	2.0	12.4
	12	7.8	11.0	7.8	11.0	7.9	11.0	7.8	11.0	7.9	11.0	7.8	11.0
	13	6.3	8.0	6.5	8.0	5.4	9.0	5.4	9.0	5.5	9.0	5.8	8.6
	15	15.1	12.0	15.1	12.0	15.3	13.0	15.3	13.0	15.1	13.0	15.2	12.6
	Total	**40.4**	**67.0**	**40.4**	**67.0**	**40.5**	**70.0**	**39.6**	**70.0**	**40.6**	**70.0**	**40.3**	**68.8**
2	1B	4.5	6.0	4.5	6.0	4.5	6.0	4.1	6.0	4.5	7.0	4.4	6.2
	4	7.6	11.0	7.5	11.0	7.7	10.0	7.3	10.0	7.5	11.0	7.5	10.6
	8	5.3	12.0	5.0	12.0	5.1	13.0	5.5	13.0	5.5	6.0	5.3	11.2
	10	7.9	7.0	7.5	7.0	7.8	7.0	7.5	7.0	7.5	10.0	7.6	7.6
	11	8.2	9.0	8.1	9.0	8.0	9.0	8.0	9.0	8.1	9.0	8.1	9.0
	14	7.2	7.0	7.1	7.0	7.1	7.0	7.2	7.0	7.1	7.0	7.1	7.0
	16	6.6	12.0	6.5	12.0	6.5	12.0	6.5	12.0	6.5	13.0	6.5	12.2
	Total	**47.3**	**64.0**	**46.2**	**64.0**	**46.7**	**64.0**	**46.1**	**64.0**	**46.7**	**63.0**	**46.6**	**63.8**
3	2A	6.0	8.0	6.0	8.0	6.0	8.0	6.0	8.0	6.0	8.0	6.0	8.0
	2B	7.6	12.0	6.5	12.0	5.7	11.0	5.3	11.0	5.5	12.0	6.1	11.6
	6A	8.7	7.0	8.8	7.0	8.8	8.0	8.5	8.0	8.5	8.0	8.7	7.6
	6B	5.4	19.0	5.5	19.0	3.6	20.0	4.0	20.0	4.1	19.0	4.5	19.4
	7	8.3	8.0	8.2	8.0	8.1	8.0	8.0	8.0	8.5	8.0	8.2	8.0
	9	9.4	6.0	9.5	6.0	9.6	6.0	9.5	6.0	9.5	6.0	9.5	6.0
	17	8.1	9.0	8.0	9.0	7.9	9.0	8.0	9.0	8.1	9.0	8.0	9.0
	Total	**53.5**	**69.0**	**52.5**	**69.0**	**49.7**	**70.0**	**49.3**	**70.0**	**50.2**	**70.0**	**51.0**	**69.6**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
2/20/2017 through 2/24/2017

	Date	2/20/2017		2/21/2017		2/22/2017		2/23/2017		2/24/2017			
	Time	Holiday		9:30 AM		4:15 PM		2:45 PM		5:00 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	-	-	3.5	12.0	3.5	12.0	3.6	12.0	3.5	12.0	3.5	12.0
	3	-	-	5.9	13.0	6.1	13.0	6.0	12.0	6.0	12.0	6.0	12.5
	5	-	-	2.9	12.0	3.0	12.0	3.1	12.0	3.5	12.0	3.1	12.0
	12	-	-	7.9	11.0	8.1	11.0	7.8	11.0	8.0	12.0	8.0	11.3
	13	-	-	6.9	9.0	5.3	8.0	6.5	8.0	6.0	8.0	6.2	8.3
	15	-	-	15.1	13.0	15.0	13.0	15.0	13.0	15.0	13.0	15.0	13.0
	Total	**0.0**	**0.0**	**42.2**	**70.0**	**41.0**	**69.0**	**42.0**	**68.0**	**42.0**	**69.0**	**41.8**	**69.0**
2	1B	-	-	4.8	7.0	5.0	7.0	4.9	8.0	5.0	8.0	4.9	7.5
	4	-	-	7.8	11.0	7.8	11.0	7.7	11.0	7.8	11.0	7.8	11.0
	8	-	-	7.8	6.0	7.7	6.0	7.3	8.0	7.5	8.0	7.6	7.0
	10	-	-	7.3	10.0	7.4	10.0	7.3	10.0	7.3	10.0	7.3	10.0
	11	-	-	8.3	9.0	8.1	9.0	8.2	9.0	8.0	9.0	8.2	9.0
	14	-	-	7.3	7.0	7.2	7.0	7.3	7.0	7.3	7.0	7.3	7.0
	16	-	-	6.3	13.0	6.6	12.0	6.7	12.0	6.5	12.0	6.5	12.3
	Total	**0.0**	**0.0**	**49.6**	**63.0**	**49.8**	**62.0**	**49.4**	**65.0**	**49.4**	**65.0**	**49.6**	**63.8**
3	2A	-	-	6.1	8.0	6.5	8.0	6.4	8.0	6.5	8.0	6.4	8.0
	2B	-	-	4.5	12.0	5.3	12.0	5.2	12.0	5.1	12.0	5.0	12.0
	6A	-	-	8.7	8.0	9.1	8.0	4.5	8.0	9.0	8.0	7.8	8.0
	6B	-	-	5.3	19.0	4.6	20.0	4.4	20.0	4.5	20.0	4.7	19.8
	7	-	-	8.3	8.0	8.4	8.0	8.4	8.0	8.4	8.0	8.4	8.0
	9	-	-	9.6	6.0	9.9	6.0	9.7	6.0	9.7	6.0	9.7	6.0
	17	-	-	8.3	9.0	8.5	9.0	10.7	9.0	9.5	9.0	9.3	9.0
	Total	**0.0**	**0.0**	**50.8**	**70.0**	**52.3**	**71.0**	**49.3**	**71.0**	**52.7**	**71.0**	**51.3**	**70.8**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
2/27/2017 through 3/3/2017

	Date	2/27/2017		2/28/2017		3/1/2017		3/2/2017		3/3/2017			
	Time	9:30 AM		1:15 PM		4:15 PM		9:30 AM		N/A			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.8	11.0	3.8	11.0	4.0	11.0	3.8	12.0	-	-	3.9	11.3
	3	5.7	13.0	5.5	12.0	5.5	12.0	5.5	12.0	-	-	5.6	12.3
	5	4.0	10.0	4.1	10.0	4.5	10.0	4.1	10.0	-	-	4.2	10.0
	12	7.7	11.0	7.5	11.0	6.0	11.0	6.5	11.0	-	-	6.9	11.0
	13	5.2	9.0	5.5	9.0	5.5	10.0	5.5	10.0	-	-	5.4	9.5
	15	15.2	12.0	15.0	12.0	15.1	12.0	15.3	12.0	-	-	15.2	12.0
	Total	**41.6**	**66.0**	**41.4**	**65.0**	**40.6**	**66.0**	**40.7**	**67.0**	**0.0**	**0.0**	**41.1**	**66.0**
2	1B	4.7	6.0	4.6	6.0	4.7	6.0	4.5	6.0	-	-	4.6	6.0
	4	8.2	11.0	7.8	10.0	7.8	10.0	8.0	10.0	-	-	8.0	10.3
	8	4.9	15.0	5.7	12.0	6.0	11.0	5.0	11.0	-	-	5.4	12.3
	10	6.4	13.0	6.5	12.0	6.9	11.0	7.0	11.0	-	-	6.7	11.8
	11	8.6	9.0	8.4	9.0	9.2	9.0	8.7	9.0	-	-	8.7	9.0
	14	7.6	7.0	7.4	7.0	7.4	7.0	7.5	7.0	-	-	7.5	7.0
	16	6.8	13.0	6.8	12.0	6.7	12.0	6.8	12.0	-	-	6.8	12.3
	Total	**47.2**	**74.0**	**47.2**	**68.0**	**48.7**	**66.0**	**47.5**	**66.0**	**0.0**	**0.0**	**47.7**	**68.5**
3	2A	6.4	8.0	6.4	8.0	5.9	7.0	6.5	7.0	-	-	6.3	7.5
	2B	7.2	12.0	7.5	12.0	7.0	11.0	7.5	11.0	-	-	7.3	11.5
	6A	9.2	8.0	9.4	8.0	8.7	8.0	8.5	8.0	-	-	9.0	8.0
	6B	3.4	21.0	1.9	21.0	4.3	19.0	4.5	19.0	-	-	3.5	20.0
	7	8.5	8.0	8.6	8.0	8.2	8.0	8.1	8.0	-	-	8.4	8.0
	9	10.2	6.0	9.7	6.0	9.5	5.0	9.5	5.0	-	-	9.7	5.5
	17	10.5	8.0	9.2	9.0	8.6	9.0	8.5	9.0	-	-	9.2	8.8
	Total	**55.4**	**71.0**	**52.7**	**72.0**	**52.2**	**67.0**	**53.1**	**67.0**	**0.0**	**0.0**	**53.4**	**69.3**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
3/6/2017 through 3/10/2017

	Date	3/6/2017		3/7/2017*		3/8/2017		3/9/2017		3/10/2017			
	Time	5:00 PM		1:15 PM		5:45 PM		9:30 AM		12:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	3.8	11.0	3.5	11.0	3.8	11.0	3.8	12.0	3.5	11.0	3.7	11.2
	3	5.6	13.0	5.4	13.0	5.3	13.0	5.5	12.0	5.1	13.0	5.4	12.8
	5	4.1	10.0	4.1	10.0	4.1	10.0	4.1	10.0	3.8	9.0	4.0	9.8
	12	7.7	11.0	7.6	11.0	7.8	11.0	6.5	11.0	7.4	11.0	7.4	11.0
	13	5.5	9.0	4.8	9.0	5.0	8.0	5.5	10.0	4.4	9.0	5.0	9.0
	15	15.3	12.0	14.9	12.0	15.3	12.0	15.3	12.0	15.1	12.0	15.2	12.0
	Total	**42.0**	**66.0**	**40.3**	**66.0**	**41.3**	**65.0**	**40.7**	**67.0**	**39.3**	**65.0**	**40.7**	**65.8**
2	1B	4.8	6.0	4.6	6.0	5.0	6.0	4.5	6.0	4.6	6.0	4.7	6.0
	4	7.8	10.0	7.9	10.0	8.0	10.0	8.0	10.0	8.0	10.0	7.9	10.0
	8	6.3	10.0	6.5	10.0	6.2	11.0	5.0	11.0	5.8	11.0	6.0	10.6
	10	7.3	9.0	7.3	9.0	3.8	13.0	7.0	11.0	6.7	11.0	6.4	10.6
	11	8.2	8.0	8.2	8.0	8.3	8.0	8.7	9.0	8.2	8.0	8.3	8.2
	14	7.3	7.0	7.3	6.0	7.4	6.0	7.5	7.0	7.5	6.0	7.4	6.4
	16	6.3	12.0	6.2	12.0	6.6	12.0	6.8	12.0	6.3	12.0	6.4	12.0
	Total	**48.0**	**62.0**	**48.0**	**61.0**	**45.3**	**66.0**	**47.5**	**66.0**	**47.1**	**64.0**	**47.2**	**63.8**
3	2A	6.2	7.0	6.3	7.0	6.3	7.0	6.5	7.0	6.3	8.0	6.3	7.2
	2B	7.4	11.0	7.5	11.0	7.7	11.0	7.5	11.0	7.7	11.0	7.6	11.0
	6A	8.6	8.0	8.8	8.0	9.0	8.0	8.5	8.0	9.3	8.0	8.8	8.0
	6B	3.2	20.0	2.3	20.0	2.7	20.0	4.5	19.0	2.3	20.0	3.0	19.8
	7	8.2	8.0	8.3	8.0	8.5	7.0	8.1	8.0	8.4	7.0	8.3	7.6
	9	9.8	5.0	9.9	5.0	9.6	6.0	9.5	5.0	10.0	5.0	9.8	5.2
	17	8.9	8.0	9.0	9.0	8.4	9.0	8.5	9.0	8.3	8.0	8.6	8.6
	Total	**52.3**	**67.0**	**52.1**	**68.0**	**52.2**	**68.0**	**53.1**	**67.0**	**52.3**	**67.0**	**52.4**	**67.4**

*** = Conducted monthly O&M**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
3/13/2017 through 3/17/2017

	Date	3/13/2017		3/14/2017		3/15/2017		3/16/2017		3/17/2017			
	Time	9:45 AM		3:00 PM		5:15 PM		10:30 AM		12:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.0	11.0	3.6	11.0	4.4	10.0	4.2	10.0	3.9	10.0	4.0	10.4
	3	5.4	13.0	5.2	12.0	6.2	13.0	5.8	13.0	5.4	12.0	5.6	12.6
	5	4.1	9.0	4.0	9.0	4.3	10.0	4.2	9.0	4.1	9.0	4.1	9.2
	12	7.6	11.0	7.3	10.0	7.7	11.0	7.7	11.0	7.4	10.0	7.5	10.6
	13	4.4	8.0	4.1	9.0	4.5	9.0	4.7	9.0	4.4	8.0	4.4	8.6
	15	15.1	12.0	14.8	12.0	14.9	12.0	15.1	12.0	14.8	12.0	14.9	12.0
	Total	**40.6**	**64.0**	**39.0**	**63.0**	**42.0**	**65.0**	**41.7**	**64.0**	**40.0**	**61.0**	**40.7**	**63.4**
2	1B	4.0	6.0	4.2	6.0	5.0	6.0	5.1	6.0	4.6	6.0	4.6	6.0
	4	8.0	10.0	7.8	10.0	8.0	10.0	8.3	10.0	7.8	10.0	8.0	10.0
	8	5.5	12.0	5.3	12.0	4.5	14.0	4.5	14.0	3.6	15.0	4.7	13.4
	10	7.0	8.0	7.1	9.0	8.0	7.0	8.0	6.0	7.9	6.0	7.6	7.2
	11	7.5	8.0	7.4	8.0	7.7	9.0	7.5	9.0	7.5	8.0	7.5	8.4
	14	7.1	6.0	7.1	6.0	7.1	7.0	7.1	7.0	7.1	6.0	7.1	6.4
	16	6.0	12.0	6.0	12.0	6.8	12.0	7.0	12.0	6.0	12.0	6.4	12.0
	Total	**45.1**	**62.0**	**44.9**	**63.0**	**47.1**	**65.0**	**47.5**	**64.0**	**44.5**	**63.0**	**45.8**	**63.4**
3	2A	5.5	7.0	5.5	7.0	5.8	7.0	5.9	7.0	5.9	7.0	5.7	7.0
	2B	7.0	10.0	7.1	10.0	7.4	11.0	7.3	10.0	7.5	10.0	7.3	10.2
	6A	8.5	7.0	8.8	7.0	8.8	8.0	8.5	7.0	8.8	7.0	8.7	7.2
	6B	4.5	19.0	4.2	19.0	3.8	19.0	3.7	19.0	2.6	20.0	3.8	19.2
	7	8.1	7.0	8.1	7.0	8.2	7.0	8.1	7.0	8.0	7.0	8.1	7.0
	9	9.5	6.0	9.3	6.0	9.7	5.0	9.7	5.0	9.9	4.0	9.6	5.2
	17	10.8	8.0	10.9	8.0	8.1	9.0	7.8	9.0	7.2	8.0	9.0	8.4
	Total	**53.9**	**64.0**	**53.9**	**64.0**	**51.8**	**66.0**	**51.0**	**64.0**	**49.9**	**63.0**	**52.1**	**64.2**

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
3/20/2017 through 3/24/2017

	Date	3/20/2017		3/21/2017		3/22/2017		3/23/2017		3/24/2017			
	Time	12:00 PM		3:45 PM		N/A		3:45 PM		9:00 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.0	10.0	4.2	10.0	-	-	4.3	11.0	4.1	11.0	4.2	10.5
	3	5.6	12.0	6.0	12.0	-	-	6.2	13.0	5.9	13.0	5.9	12.5
	5	4.1	9.0	4.1	9.0	-	-	4.2	9.0	4.2	10.0	4.2	9.3
	12	7.4	11.0	7.7	11.0	-	-	7.8	11.0	7.6	11.0	7.6	11.0
	13	4.4	9.0	5.0	9.0	-	-	4.3	9.0	4.9	9.0	4.7	9.0
	15	14.7	12.0	15.3	12.0	-	-	15.1	12.0	15.4	12.0	15.1	12.0
	Total	**40.2**	**63.0**	**42.3**	**63.0**	**0.0**	**0.0**	**41.9**	**65.0**	**42.1**	**66.0**	**41.6**	**64.3**
2	1B	4.9	6.0	4.4	6.0	-	-	4.7	6.0	5.3	6.0	4.8	6.0
	4	7.9	10.0	7.9	10.0	-	-	7.9	10.0	8.0	10.0	7.9	10.0
	8	4.3	14.0	5.2	13.0	-	-	5.0	13.0	5.1	14.0	4.9	13.5
	10	8.2	6.0	8.1	6.0	-	-	7.9	7.0	7.7	9.0	8.0	7.0
	11	7.7	9.0	7.5	8.0	-	-	7.6	8.0	8.1	9.0	7.7	8.5
	14	7.1	7.0	7.0	6.0	-	-	7.1	6.0	7.1	7.0	7.1	6.5
	16	6.3	12.0	6.2	12.0	-	-	6.2	12.0	6.8	12.0	6.4	12.0
	Total	**46.4**	**64.0**	**46.3**	**61.0**	**0.0**	**0.0**	**46.4**	**62.0**	**48.1**	**67.0**	**46.8**	**63.5**
3	2A	6.1	7.0	6.3	7.0	-	-	6.1	7.0	6.2	8.0	6.2	7.3
	2B	8.1	11.0	8.6	11.0	-	-	8.2	11.0	18.0	11.0	10.7	11.0
	6A	8.8	7.0	9.3	7.0	-	-	8.9	8.0	8.7	8.0	8.9	7.5
	6B	2.3	20.0	1.4	21.0	-	-	1.9	20.0	1.7	21.0	1.8	20.5
	7	8.3	7.0	8.5	7.0	-	-	8.3	7.0	8.4	7.0	8.4	7.0
	9	9.8	5.0	9.9	6.0	-	-	10.1	5.0	10.3	5.0	10.0	5.3
	17	8.3	9.0	6.5	8.0	-	-	7.9	9.0	8.7	9.0	7.9	8.8
	Total	**51.7**	**66.0**	**50.5**	**67.0**	**0.0**	**0.0**	**51.4**	**67.0**	**62.0**	**69.0**	**53.9**	**67.3**

Notes: Readings were not collected on 3/22/2017 due to timed out connection with online interface.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
3/27/2017 through 3/31/2017

	Date	3/27/2017		3/28/2017		3/29/2017		3/30/2017		3/31/2017			
	Time	12:00 PM		9:00 AM		9:00 AM		12:00 PM		9:00 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	4.2	11.0	4.5	11.0	4.0	11.0	3.8	10.0	4.1	10.0	4.1	10.6
	3	6.1	12.0	6.0	12.0	5.4	13.0	5.6	12.0	5.5	12.0	5.7	12.2
	5	4.0	9.0	4.1	9.0	4.1	9.0	4.1	9.0	4.0	9.0	4.1	9.0
	12	7.9	12.0	8.0	11.0	7.5	11.0	7.5	10.0	7.5	10.0	7.7	10.8
	13	4.0	9.0	4.1	9.0	4.8	8.0	5.2	8.0	5.0	8.0	4.6	8.4
	15	15.0	12.0	15.0	12.0	15.1	12.0	15.1	12.0	15.0	12.0	15.0	12.0
	Total	**41.2**	**65.0**	**41.7**	**64.0**	**40.9**	**64.0**	**41.3**	**61.0**	**41.1**	**61.0**	**41.2**	**63.0**
2	1B	4.5	6.0	4.4	6.0	5.2	6.0	5.0	6.0	5.2	6.0	4.9	6.0
	4	7.5	10.0	7.8	10.0	8.4	10.0	8.5	10.0	8.5	11.0	8.1	10.2
	8	5.2	12.0	5.4	12.0	5.8	13.0	6.0	12.0	6.2	12.0	5.7	12.2
	10	8.0	7.0	7.9	7.0	5.6	13.0	5.5	13.0	7.5	13.0	6.9	10.6
	11	8.0	9.0	8.0	9.0	8.4	9.0	8.5	9.0	8.0	9.0	8.2	9.0
	14	7.1	7.0	7.2	7.0	7.5	7.0	7.1	7.0	7.0	7.0	7.2	7.0
	16	6.2	12.0	6.4	12.0	7.2	12.0	7.3	12.0	7.5	12.0	6.9	12.0
	Total	**46.5**	**63.0**	**47.1**	**63.0**	**48.1**	**70.0**	**47.9**	**69.0**	**49.9**	**70.0**	**47.9**	**67.0**
3	2A	6.1	7.0	6.3	7.0	6.5	7.0	6.2	7.0	6.0	7.0	6.2	7.0
	2B	8.5	11.0	8.3	11.0	8.4	11.0	8.4	11.0	8.5	11.0	8.4	11.0
	6A	9.0	8.0	8.9	8.0	8.8	8.0	9.3	7.0	9.5	7.0	9.1	7.6
	6B	1.5	20.0	1.6	21.0	1.5	21.0	1.3	20.0	1.5	20.0	1.5	20.4
	7	8.5	7.0	8.4	7.0	8.4	7.0	8.4	7.0	8.0	7.0	8.3	7.0
	9	10.0	5.0	9.9	5.0	10.2	5.0	9.9	5.0	10.2	5.0	10.0	5.0
	17	8.5	9.0	8.4	9.0	23.9	8.0	7.5	7.0	7.5	7.0	11.2	8.0
	Total	**52.1**	**67.0**	**51.8**	**68.0**	**67.7**	**67.0**	**51.0**	**64.0**	**51.2**	**64.0**	**54.8**	**66.0**