

RECEIVED

By Alameda County Environmental Health 8:52 am, Jan 10, 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
REMEDATION EFFECTIVENESS REPORT,
OWENS-BROCKWAY GLASS CONTAINER FACILITY.
3600 ALAMEDA AVENUE, OAKLAND, CALIFORNIA.**

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 declare under penalty of perjury that the information and recommendations contained in the attached report are true and correct to the best of my knowledge.

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

Sincerely,



Mark Tussing,
Regional EHS Manager

**FOURTH QUARTER 2016 GROUNDWATER MONITORING
AND REMEDIATION EFFECTIVENESS REPORT**

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



CKG Environmental, Inc.

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

A Report Prepared for:

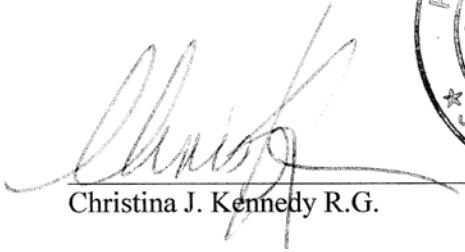
Mr. Mark Tussing
Environmental Affairs
One Michael Owens Way
Perrysburg, OH 43551-2999

**FOURTH QUARTER 2016 GROUNDWATER MONITORING
AND REMEDIATION EFFECTIVENESS REPORT**

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

January 5, 2017

Prepared by:



Christina J. Kennedy R.G.



Principal

CKG Environmental, Inc.
P.O. Box 246
St. Helena, California 94574
(707) 967-8080

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY3

2.0 INTRODUCTION.....2

 2.1 SITE DESCRIPTION 2

3.0 GROUNDWATER MONITORING3

 3.1 GROUNDWATER GRADIENT 3

 3.2 WELL SAMPLING 3

 3.3 CHEMICAL ANALYSIS 4

 3.5 INVESTIGATION DERIVED WASTES (IDW) 5

 3.6 BIOBARRIER OPERATIONS AND MAINTENANCE 5

4.0 FINDINGS6

 4.1 SUMMARY OF GROUNDWATER RESULTS 6

 4.1.1 Petroleum Hydrocarbons (gasoline, diesel and motor oil)..... 6

 4.1.2 Naphthalene MTBE and Lead Scavengers 7

 4.1.3 Inorganic Constituents and Heterotrophic Plate Counts..... 7

 4.2 SUMMARY OF BARRIBARRIER OPERATIONS 7 MAINTENANCE 7

5.0 CONCLUSIONS AND RECOMMENDATIONS.....8

 5.1 CONCLUSIONS 8

 5.2 RECOMMENDATIONS 8

6.0 REFERENCES.....9

LIMITATIONS11

TABLES

Table 1 Monitoring Well Construction Details

Table 2 Groundwater Elevations

Table 3 Summary of Petroleum Hydrocarbon Analytical Results

Table 3 Summary of MTBE, Naphthalene, and Lead Scavenger Results

Table 3 Summary of Inorganic Constituent Results

PLATES

Plate 1 Site Location Map

Plate 2 Groundwater Elevation Contour Map

Plate 3 Fuel Oil/Diesel Contour Map

APPENDICES

Appendix A Well Sampling Logs

Appendix B Analytical Laboratory Report

Appendix C O&M Summary Sheets

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. In November 2016 MTBE was detected at a concentration below the State of California Maximum Contaminant Level (MCL) for drinking water. The MTBE may be residual from the former gasoline release in the vicinity. Naphthalene and lead scavengers were not detected above laboratory reporting limits. This fourth quarter 2016 groundwater monitoring also shows that petroleum hydrocarbon concentrations in general appear to have decreased over time, and have decreased substantially in wells nearest the biobarrier. 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 fourth quarter 2016 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 an asphalt refinery was discovered to have 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 November 10, 2016, 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 November 10, 2016 the groundwater flow direction is generally to the south-southwest. This groundwater flow direction has been observed in past monitoring events. Monitoring well construction details are presented in Table 1. Depth to water measurements and groundwater elevations are summarized in Table 2. Well sampling and purge logs are contained in Appendix A.

3.2 WELL SAMPLING

On November 10, 2016 a round of groundwater sampling in the monitoring wells was performed. Visible sheen was observed in MW-2R, MW-5, MW-6 and MW-7. Absorbent socks were deployed and replaced in MW-5, MW-6, and MW-7. 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 August 8 through November 13 is provided in Appendix C.

4.0 FINDINGS

The following describes the results of the fourth quarter 2016 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 seven of the wells sampled. These include MW-2R (130 µg/l), MW-5 (94 µg/l), MW-6 (260 µg/l), MW-8 (210 µg/l), MW-10 (140 µg/l), MW-17 (530 µg/l) and MW-19 (330 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 eight of the wells sampled. These include MW-2R (1500 µg/l), MW-5 (940 µg/l), MW-6 (13,000 µg/l), MW-7 (760 µg/l), MW-8 (150 µg/l), MW-10 (310 µg/l), MW-17 (910,000 µg/l) and MW-19 (900 µg/l). Interestingly the TPHd in MW5, MW-6 and MW-7 are substantially lower than observed in the past and they are located close to the biobarrier. The drop in TPHd may be the result of enhanced bioremediation in the vicinity of the biobarrier. TPHd in MW-17 and MW-9 are higher than they were last year.

Petroleum hydrocarbons quantified as motor oil were detected in six of the wells sampled. These include MW-2R (1400 µg/l), MW-5 (590 µg/l), MW-6 (11,000 µg/l), MW-7 (720 µg/l), MW-8 (340 µg/l), and MW-17 (360,000 µg/l). As observed for TPHd the TPHmo is substantially lower in the wells that are close to the biobarrier (MW-5, 6 and 7) compared to the 2015 data, which suggests enhanced bioremediation in the vicinity of the biobarrier. 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). The only constituents detected above the laboratory reporting limit was MTBE in MW-17 at 3.7 µg/l, and naphthalene detected in MW-19 at 6.7 µg/l. The MTBE may be residual from the former gasoline release that was in the area. The primary drinking water standard for MTBE is 13 ug/l, which is higher than the MTBE detected. The naphthalene is probably associated with the overall petroleum hydrocarbon release from the former asphalt refinery. The tier 1 screening level for naphthalene is 0.12 µg/l. Continued monitoring will show if the naphthalene occurs consistently.

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 normally measured in the field to provide some information regarding oxygen availability and utilization in groundwater as well. These measurements were not made on November 10, 2016, but will be made in future monitoring events. 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 and heterotrophic plate counts are observed but a clear pattern is not yet apparent. Ongoing groundwater monitoring should reveal 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 substantially since the biobarrier started operating.

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.

Future groundwater monitoring will be conducted 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. 2016, Revised Work Plan to Complete a Soil Vapor Investigation, Owens-Brockway Glass Container Facility, Oakland, California, October 13, 2016.

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.
2013 Report, April 30, 2013.
2012 Report, April 22, 2012.
2010 Report, January 20, 2011.
2009 Report, January 10, 2010.
2008 Report, January 8, 2009.
2007 Report, December 17, 2007.
2006 Report, January 12, 2007.
2005 Report, November 29, 2005.
2004 Report, April 29, 2004.

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 Elevation ^(a)	Top of Screen ^(b)	Screen Length	Well Depth ^(c)	Casing Diameter (inches)	Comments
MW-1	9/12/1986	16.02	8	21	29	2	
MW-2	12-Sep-86	17.11	10	20	30	2	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 November 10, 2016

Well Number	Date Installed	Top of Casing Elevation ^(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	NA	10.15	0.05	
MW-3R	11-Sep-15	NA	12.64		
MW-4	12-Sep-86	NA	Destroyed		
MW-5	12-Sep-86	16.19	11.13	0.03	5.09
MW-6	12-Sep-86	17.48	13.75	0.02	3.75
MW-7	12-Sep-86	16.11	11.62		4.49
MW-8	12-Sep-86	16.57	8.51		8.06
MW-9	12-Sep-86	7.33 ^(d)	Not measured, well cannot be located		
MW-10	12-Sep-86	15.96	9.15		6.81
MW-11	12-Sep-86	13.99	Destroyed		
MW-12	12-Sep-86	13.83	Destroyed		
MW-13	12-Sep-86	13.98	10.56		3.42
MW-14	12-Sep-86	NA	Destroyed		
MW-15	12-Sep-86	15.16	11.67		3.49
MW-16	12-Sep-86	13.48	9.09		4.39
MW-17	12-Sep-86	14.17	9.25		4.92
MW-19	01-May-03	NA	10.87		NA
MW-20	01-Dec-00	12.74	11.03		1.71
MW-21	11-Sep-15	NA	8.69		

(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							
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
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
MW-4	9/23/1986	<5	<5	NA	<5	NA	20	7,200
	4/9/1987	BDL	BDL	NA	BDL	NA	BDL	NA
	9/16/1987	BDL	BDL	NA	BDL	660	1.3	NA
	12/1/1987	BDL	BDL	NA	8.9	100	BDL	NA
	3/7/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	6/8/1988	BDL	BDL	NA	BDL	BDL	BDL	NA
	9/14/1988	BDL	BDL	NA	BDL	100	BDL	NA
		Destroyed						
MW-5	10/3/1986	<5	<5	NA	6.6	NA	1400	24,000
	4/9/1987	<5	<5	NA	<5	NA	54	NA
	9/16/1987	NA	NA	NA	NA	960	NA	NA
	12/1/1987	NA	NA	NA	NA	2000	NA	NA
	3/9/1988	NA	NA	NA	NA	<50	NA	NA
	6/8/1988	NA	NA	NA	NA	12,000	NA	NA
	9/14/1988	NA	NA	NA	NA	6,300	NA	NA
	9/16/1997	<0.5	<0.5	<0.5	<0.5	11,600	<50	NA
	11/2/1998	floating product						
	12/6/2000	<0.5	<0.5	<0.5	<0.5	11,700 ^(a)	1000	NA
	12/12/2001	<0.5	<0.5	<0.5	<0.5	10,000 ^(a)	360 ^(b)	NA
	12/6/2002	<0.5	<0.5	<0.5	<0.5	5,200 ^(a)	150 ^(b)	NA
	3/15/2004	<0.5	<0.5	<0.5	<0.5	46,000 ^(a)	180 ^(b)	NA
	6/30/2005	<0.5	<0.5	<0.5	<0.5	34,000	100	26,000
	9/11/2006	<0.5	<0.5	<0.5	<0.5	45,000	300 ^(a)	33,000
	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

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

November 28, 2016

**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

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	

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	

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	inaccessible						
	12/5/2002	inaccessible						
	3/15/2004	inaccessible						
	6/30/2005	inaccessible						
	9/11/2006	inaccessible						
	10/17/2007	inaccessible						
	10/21/2008	inaccessible						
	10/16/2009	inaccessible						
	10/29/2010	inaccessible						
	3/1/2012	inaccessible						
	3/22/2013	inaccessible						
1/24/2014	inaccessible							
10/1/2015	inaccessible							
11/10/2016	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	
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	
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	

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	

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	
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
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	
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

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
MW-2R	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<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
MW-5	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<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
MW-7	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<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
MW-9	01-Oct-15	Innaccessible			
	10-Nov-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
MW-13	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<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
MW-16	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<0.5	<0.5	<0.5	<0.5
MW-17	01-Oct-15	<0.5	<0.5	5.8	<0.5
	10-Nov-16	<0.5	<0.5	3.7	<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
MW-20	01-Oct-15	<0.5	<0.5	<0.5	<0.5
	10-Nov-16	<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

EDB = Ethylene dibromide
 1,2,-DCA = 1,2 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			Heterotrophic			
					Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	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									
MW-2R	01-Oct-15	Floating product, not sampled									
	10-Nov-16	0.8	2.3	41	604	124	<5	480	<1		
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
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
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
MW-7	01-Oct-15	Could not locate									
	10-Nov-16	<0.1	<0.1	500	237	<1	237	<1	4,400	NA	NA
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
MW-9	01-Oct-15	Inaccessible									
	10-Nov-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
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
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
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
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

Notes: mg/l = milligrams per liter
 DO = Dissolved Oxygen
 mV = millivolts

CFU/ml = Colony forming unit/milliliter
 ORC = Oxidation Reduction Potential

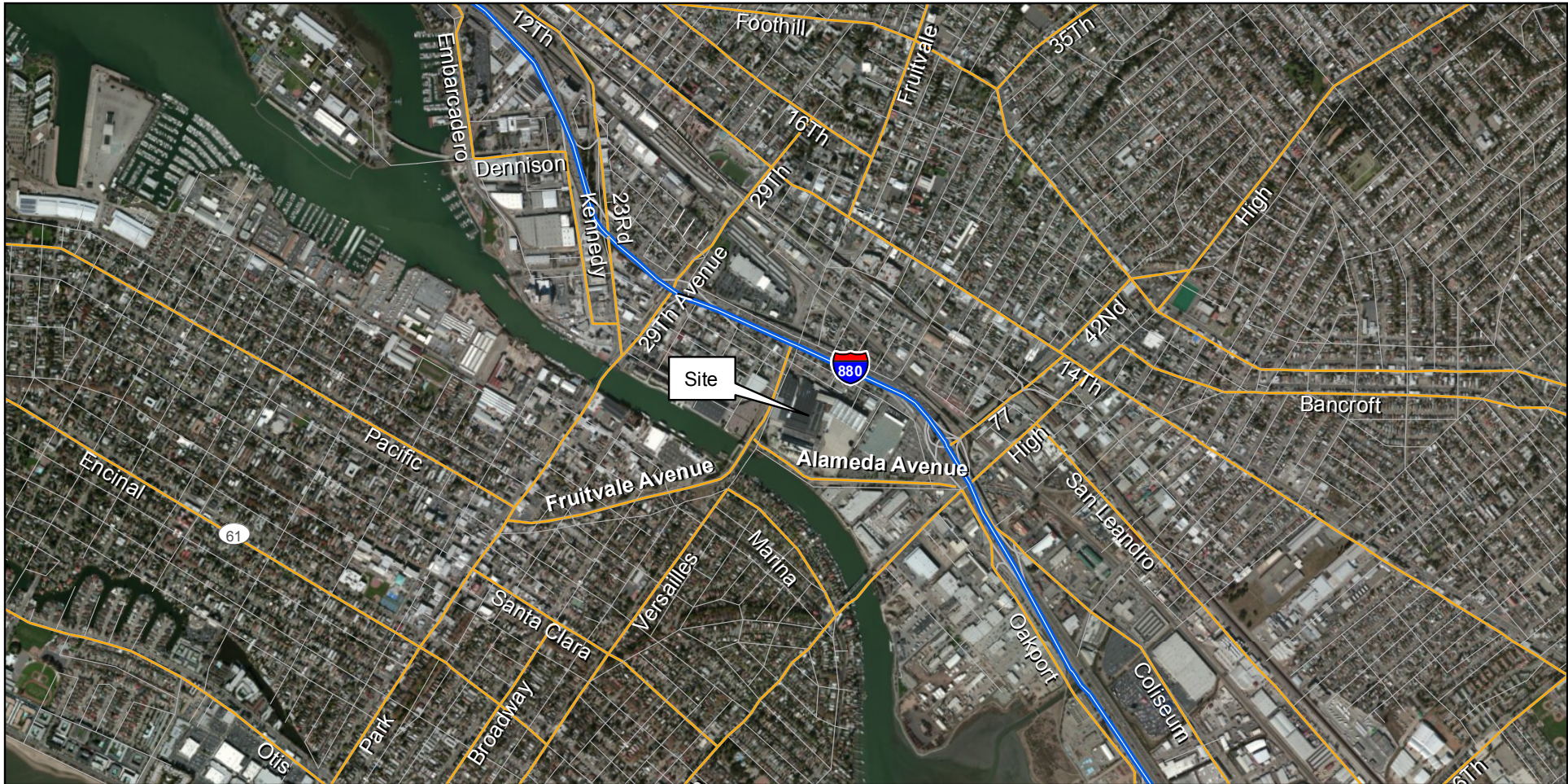
Table 5 Summary of Inorganic Constituent Results

Well Number	Date Sampled	Nitrate as N (mg/l)	Nitrite as N (mg/l)	Sulfate (mg/l)	Total			Heterotrophic			
					Alkalinity (mg/l)	Carbonate (mg/l)	Bicarbonate (mg/l)	Hydroxide (mg/l)	Plate Count (CFU/ml)	DO (mg/l)	ORC (mV)
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
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
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

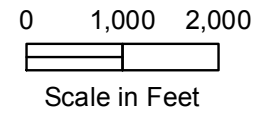
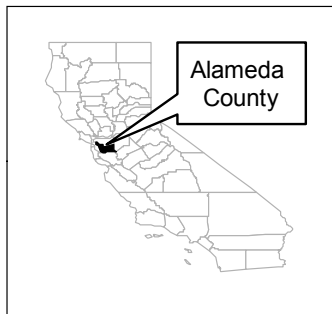
Notes: mg/l = milligrams per liter
 DO = Dissolved Oxygen
 mV = millivolts

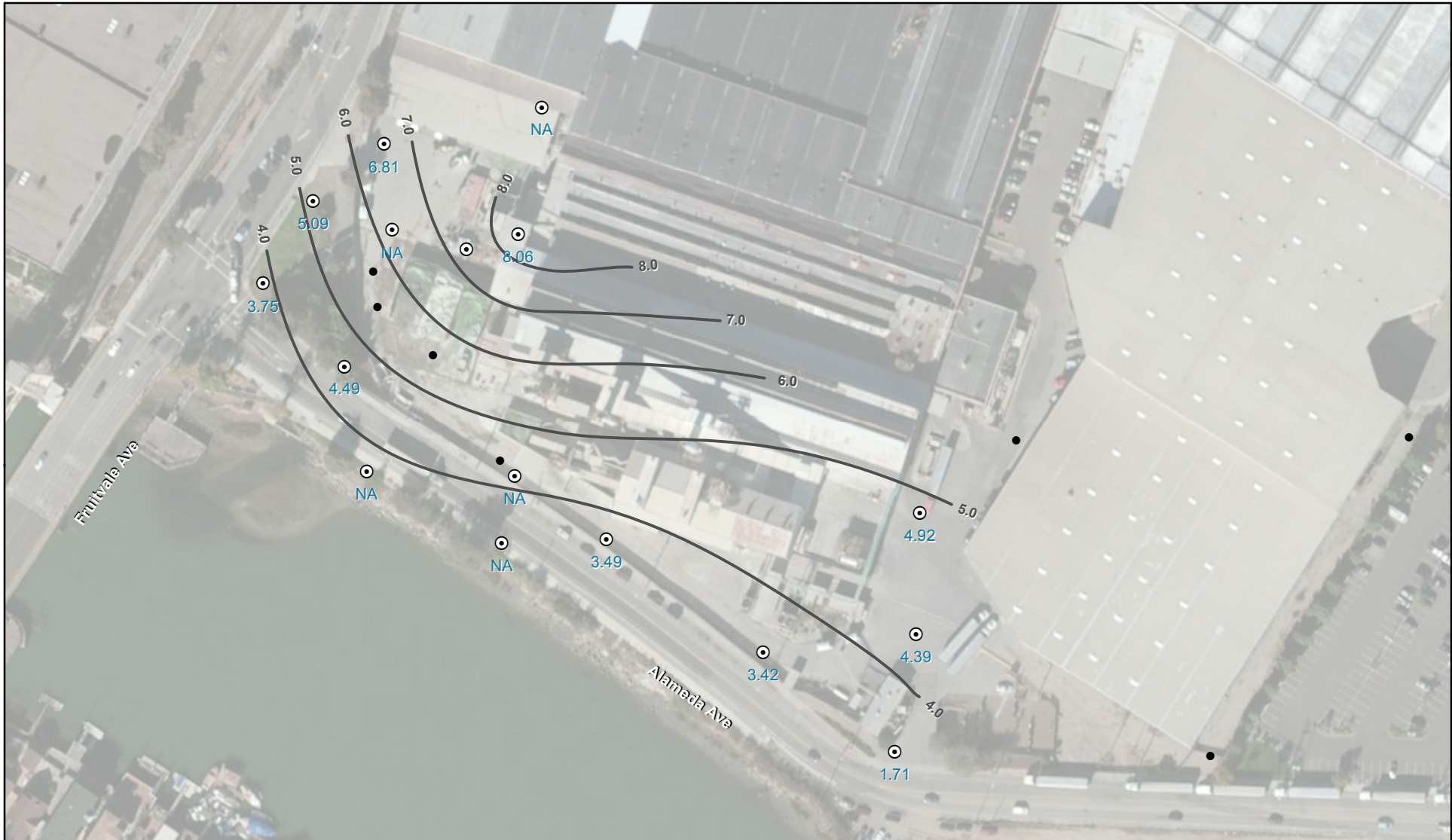
CFU/ml = Colony forming unit/milliliter
 ORC = Oxidation Reduction Potential
 NA = Not available

PLATES



Drawn by PAD. January 2014. Base layers are unmodified Alameda County Digital Data Sets.

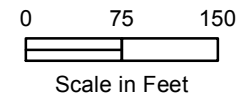




Drawn by PAD, December 2015. Base layer is aerial provided by ArcGIS Online.

EXPLANATION

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

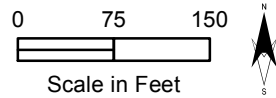




Drawn by PAD. December 2016. Base layer is aerial provided by ArcGIS Online.

EXPLANATION

- Monitoring Well
- Destroyed Well
- OBOaklandWellsforJoin
- Line of Equal Concentration
- - - Dashed where approximate
- 490 TPHd Concentration ug/L
- NA Not Available



APPENDIX A

WELL GAUGING DATA

Project # 16110-ACI Date 11/10/16 Client CKG

Site OWENS CORNING 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-1	UNABLE TO LOCATE									
MW-2R	0800	2	Y/Y				10.15	22.62		
MW-3R	0807	2	ODOR				12.64	22.09		
MW-5	0845	2	Y/Y				11.13	22.90		* SOCK
MW-6	0849	2	Y/Y				13.75	22.95		* SOCA
MW-7	0853	2	Y/Y				11.62	16.95		* SOCK
MW-8	0815	2	N				8.96	23.42		
MW-9	UNABLE TO LOCATE									
MW-10	0805	2	N				9.15	19.30		
MW-13	0820	2	N				10.56	18.24		
MW-15	0825	2	ODOR				11.67	27.97		
MW-16	0815	2	N				9.09	19.33		
MW-17	0810	2	N				9.25	15.92		
MW-19	0845	2	N				10.87	25.10		
MW-20	0835	2	N				11.03	28.87		
MW-21	0840	2	N				8.69	21.90		

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client CKE Date 11/10/16
 Site Address 3600 ALEMEDA AVE OAKLAND, CA
 Job Number 16110-ACI Technician AC

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							*	
MW-2R	X							
MW-3R	X							
MW-5B						-2/2B		
MW-6		X						
MW-7	X							
MW-8						1/2 TS		
MW-9							*	
MW-10						LID BROKEN		
MW-13						LID BROKEN		
MW-15						-2/2B		
MW-16						-2/2B		
MW-17						BOX BROKEN		
MW-19	X							
MW-20						-2/2 BOLTS		
MW-21	X							

NOTES: * UNABLE TO LOCATE MW-1, MW-9

WELL MONITORING DATA SHEET

Project #: <u>16110-AC1</u>	Client: <u>CK6</u>
Sampler: <u>A</u>	Date: <u>11/10/16</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 4 6 8 <u> </u>
Total Well Depth (TD):	Depth to Water (DTW):
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVE</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>* UNABLE TO LOCATE</u>						

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: _____ Sampling Time: _____ Depth to Water: _____

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

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 161110-AC1	Client: CKG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-2R	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 22.62	Depth to Water (DTW): 10.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.64	

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

Other: _____

2.0 (Gals.) X 3 = 7.5 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0955	21.6	10.26	2341	154	2.0	HEAVY SHEEN + GLOBULES
1000	21.9	11.69	2476	156	5.0	↓
1005	21.9	11.86	2669	158	8.0	↓

Did well dewater? Yes No Gallons actually evacuated: 7.5

Sampling Date: 11/10/16 Sampling Time: 1230 Depth to Water: 10.15

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

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

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

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

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

*TB @ 0800

WELL MONITORING DATA SHEET

Project #: 161110-AC1	Client: CKG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-3R	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 22.00	Depth to Water (DTW): 12.64
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column ^{9.36} x 0.20) + DTW]: 14.51	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Waterra Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

1.5 (Gals.) X	3	=	4.5	Gals.
1 Case Volume	Specified Volumes	Calculated Volume		

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1035	21.3	8.38	1693	>1000	1.5	
1037	DEWATERED				2.1	
1300	22.5	7.90	732	589	GRAB	

Did well dewater? Yes No Gallons actually evacuated: 2.0

Sampling Date: 11/10/16 Sampling Time: 1300 Depth to Water: 16

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 161110-AC1	Client: CKG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-5	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 22.90	Depth to Water (DTW): 11.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.48	

Purge Method: Bailer Waterra Sampling Method: Bailer

Disposable Bailer Peristaltic
 Positive Air Displacement Extraction Pump
 Electric Submersible Other _____

Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

$1.9 \text{ (Gals.)} \times 3 = 5.7 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
10:16	19.5	7.96	1279	373	1.9	HEAVY SHEEN GLOBS
10:50	18.9	7.87	1205	97	3.8	LIGHT SHEEN
10:54	18.8	7.73	1195	230	5.7	↓
* REPLACED SPH SOCK						

Did well dewater? Yes No Gallons actually evacuated: 5.7

Sampling Date: 11/10/16 Sampling Time: 1325 Depth to Water: 11.15

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: <u>161010-AC1</u>	Client: <u>CKG</u>
Sampler: <u>AC</u>	Date: <u>11/10/16</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>22.95</u>	Depth to Water (DTW): <u>13.75</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.59</u>	

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

Other: _____

1.5 (Gals.) X 3 = 4.5 Gals.
 I Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1116	22.3	7.79	1160	71000	1.5	SHEEN/ODOR
1120	DEWATERED				2.8	
1340	23.5	7.71	1162	71000	GRAB	

Did well dewater? Yes No Gallons actually evacuated: 2.8

Sampling Date: 11/10/16 Sampling Time: 1340 Depth to Water: 13.80

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 161110-AC1	Client: CAG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-7	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 16.95	Depth to Water (DTW): 11.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: ^{5.33} 12.69	

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

Other: _____

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

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1139	23.8	7.71	1620	>1000	0.9	
1141	DEWATERED				1.5	
1400	24.3	7.81	1533	>1000	GRAB	

Did well dewater? Yes No Gallons actually evacuated: 1.5

Sampling Date: 11/10/16 Sampling Time: 1400 Depth to Water: 11.62

Sample I.D.: MW-7 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:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 16110-AC1	Client: CKG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-8	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 23.42	Depth to Water (DTW): 8.96
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 ^{14.46} x 0.20) + DTW]: 11.85	

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

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1014	18.0	8.88	2236	386	2.3	LIGHT SHEEN
1018	17.5	8.70	1839	536	4.6	↓
1022	17.5	8.48	1572	821	6.9	↓

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: 6.9	
Sampling Date: 11/10/16	Sampling Time: 1245	Depth to Water: 9.01
Sample I.D.: MW-8	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: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: 161110-AC1	Client: CKG
Sampler: AC	Date: 11/10/16
Well I.D.: MW-9	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW):
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: 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 Watera Sampling Method: Bailer
Disposable Bailer Peristaltic Disposable Bailer
Positive Air Displacement Extraction Pump Extraction Port
Electric Submersible Other _____ Dedicated Tubing
Other: _____

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

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
*	UNABLE TO LOCATE					

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

WELL MONITORING DATA SHEET

Project #: <u>16110-AU</u>	Client: <u>CSG</u>
Sampler: <u>1515</u>	Date: <u>11-10-16</u>
Well I.D.: <u>MW-10</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>19.30</u>	Depth to Water (DTW): <u>9.15</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.18</u>	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

1.50 (Gals.) X 3 = 4.50 Gals.

I Case Volume Specified Volumes Calculated Volume

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

Time	Temp. (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1211	22.7	7.08	1091	582	1.50	grey color I
1214	22.2	6.91	1139	621	3.00	
1217	26.7	7.07	1217	656	4.50	

Did well dewater? Yes No Gallons actually evacuated: 4.50

Sampling Date: 11-10-16 Sampling Time: 1235 Depth to Water: 10.67

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: _____ mg/L

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

WELL MONITORING DATA SHEET

Project #: 161110-A01	Client: CLK
Sampler: 1515	Date: 11-10-16
Well I.D.: MW-13	Well Diameter: 2 3 4 6 8 _____
Total Well Depth (TD): 18.24	Depth to Water (DTW): 10.56
Depth to Free Product: -	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.09	

Purge Method: Bailer Disposable Bailer Water Peristaltic Extraction Pump
 Positive Air Displacement Electric Submersible Other _____

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

$1.25 \text{ (Gals.)} \times 3 = 3.75 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1011	21.9	7.38	974	735	1.25	brown, yellow, streaky ↓
1014	21.7	7.62	976	>1000	2.50	
1017	21.7	7.56	1013	>1000	3.75	

Did well dewater? Yes No Gallons actually evacuated: 3.75

Sampling Date: 11-10-16 Sampling Time: 1300 Depth to Water: 10.50

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 16110-AC1	Client: CKG
Sampler: 1515	Date: 11-10-16
Well I.D.: MW-15	Well Diameter: ② 3 4 6 8 _____
Total Well Depth (TD): 27.97	Depth to Water (DTW): 11.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.93	

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

2.50 (Gals.) X 3 = 7.50 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1027	21.7	7.47	1544	71000	2.50	brown, light odor
1041	well dewatered @ 3.50 gallons					
	21.5	7.39	1554	273	Grab	cloudy

Did well dewater? Yes No Gallons actually evacuated: 3.50

Sampling Date: 11-10-16 Sampling Time: 1245 Depth to Water: 13.12

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

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

WELL MONITORING DATA SHEET

Project #: 16110-AC1	Client: ⁽⁵⁰⁾ GR C/S/L
Sampler: 1515	Date: 11-10-16
Well I.D.: MW-16	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 19.33	Depth to Water (DTW): 9.09
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.14	

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

Other: _____

$1.75 \text{ (Gals.)} \times 3 = 5.25 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0953	23.1	7.37	724	346	1.75	brown color, green
0955	23.2	7.31	709	488	3.50	↓
0958	23.3	7.37	703	582	5.25	

Did well dewater? Yes No Gallons actually evacuated: 5.25

Sampling Date: 11-10-16 Sampling Time: ⁽⁵¹⁾ 1340 / 1345 Depth to Water: 9.82

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 16110-AC1	Client: CKL
Sampler: 1915	Date: 11-10-16
Well I.D.: MW-17	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 15.92	Depth to Water (DTW): 9.25
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]: 10.58	

Purge Method: Bailer Watera Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ 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	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0938	22.5	6.35	946	71050	1	odor, grey, see ↓
0941	22.6	6.52	895	71000	2	
0944	22.4	6.79	896	71000	3	

Did well dewater? Yes No Gallons actually evacuated: 3.00

Sampling Date: 11-10-16 Sampling Time: 1330 Depth to Water: 9.41

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

WELL MONITORING DATA SHEET

Project #: 16110-AC1	Client: <u>B CISE</u>
Sampler: <u>196</u>	Date: <u>11-10-16</u>
Well I.D.: <u>MW-19</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>25.10</u>	Depth to Water (DTW): <u>10.87</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>13.72</u>	

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

Other: _____

$2.25 \text{ (Gals.)} \times 3 = 6.75 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1120	21.3	7.07	948	351	2.25	cloudy ↓
1125	21.4	6.82	945	348	4.50	
1130	21.2	6.83	936	352	6.75	

Did well dewater? Yes No Gallons actually evacuated: 6.75

Sampling Date: 11-10-16 Sampling Time: 1400 Depth to Water: 11.12

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: 161116-AC1	Client: C196
Sampler: 1565	Date: 11-10-16
Well I.D.: MW-20	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 28.87	Depth to Water (DTW): 11.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVE</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.60	

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

Other: _____

3	3	= 9
(Gals.) X	Specified Volumes	Calculated Volume
I Case Volume		

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1043	22.0	7.64	889	7/000	3	brown odor ↓
1048	21.4	7.36	852	7/000	6	
1053	21.4	7.71	849	7/000	9	

Did well dewater? Yes No Gallons actually evacuated: 9

Sampling Date: 11-10-16 Sampling Time: 1350 Depth to Water: 11.03

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

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

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

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

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

WELL MONITORING DATA SHEET

Project #: <u>16110-AC1</u>	Client: <u>UISG</u>
Sampler: <u>195</u>	Date: <u>11-10</u>
Well I.D.: <u>MW-21</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>21.90</u>	Depth to Water (DTW): <u>8.69</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.33</u>	

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

Other: _____

<u>2</u> (Gals.) X	<u>3</u>	= <u>6</u> Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1104</u>	<u>21.2</u>	<u>7.24</u>	<u>1804</u>	<u>747</u>	<u>2</u>	<u>brown</u> ↓
<u>1107</u>	<u>21.2</u>	<u>7.25</u>	<u>1831</u>	<u>864</u>	<u>4</u>	
<u>1110</u>	<u>21.2</u>	<u>7.12</u>	<u>1851</u>	<u>7100</u>	<u>6</u>	

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Date: 11-10-16 Sampling Time: 1340 Depth to Water: 8.74

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

APPENDIX B



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1611506

Report Created for: CKG Environmental
P.O. Box 246
St. Helena, CA 94574

Project Contact: Christina Kennedy
Project P.O.:
Project Name: 161110-ACI

Project Received: 11/10/2016

Analytical Report reviewed & approved for release on 11/16/2016 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: 161110-ACI
WorkOrder: 1611506

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)



Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: 161110-ACI
WorkOrder: 1611506

Analytical Qualifiers

H	samples were analyzed out of holding time
S	surrogate spike recovery outside accepted recovery limits
b6	lighter than water immiscible sheen/product is present
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
c11	The surrogate recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data has been reported.
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
e3/e2	aged diesel is significant; and/or diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e4/e11	gasoline range compounds are significant.; and/or stoddard solvent/mineral spirit (?)
e7	oil range compounds are significant
e8	kerosene/kerosene range/jet fuel range
e11	stoddard solvent/mineral spirit (?)
e11/e4	stoddard solvent/mineral spirit (?); and/or gasoline range compounds are significant.



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1611506-001C	Water	11/10/2016 12:30	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.80	0.10	1	11/10/2016 22:07
Nitrate as NO ₃ ⁻	3.6	0.45	1	11/10/2016 22:07
Nitrite as N	2.3	0.10	1	11/10/2016 22:07
Nitrite as NO ₂ ⁻	7.5	0.33	1	11/10/2016 22:07
Sulfate	41	2.0	20	11/11/2016 23:44

Surrogates	REC (%)	Limits	Date Analyzed
Formate	106	85-115	11/10/2016 22:07

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002C	Water	11/10/2016 13:00	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.11	0.10	1	11/10/2016 22:46
Nitrate as NO ₃ ⁻	0.47	0.45	1	11/10/2016 22:46
Nitrite as N	ND	0.10	1	11/10/2016 22:46
Nitrite as NO ₂ ⁻	ND	0.33	1	11/10/2016 22:46
Sulfate	84	10	100	11/12/2016 06:15

Surrogates	REC (%)	Limits	Date Analyzed
Formate	105	85-115	11/10/2016 22:46

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1611506-003C	Water	11/10/2016 13:25	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.11	0.10	1	11/10/2016 23:25
Nitrate as NO ₃ ⁻	0.50	0.45	1	11/10/2016 23:25
Nitrite as N	0.20	0.10	1	11/10/2016 23:25
Nitrite as NO ₂ ⁻	0.64	0.33	1	11/10/2016 23:25
Sulfate	8.2	2.0	20	11/12/2016 00:23

Surrogates	REC (%)	Limits	Date Analyzed
Formate	105	85-115	11/10/2016 23:25

Analyst(s): AO

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004C	Water	11/10/2016 13:40	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	11/11/2016 00:04
Nitrate as NO ₃ ⁻	ND	0.45	1	11/11/2016 00:04
Nitrite as N	ND	0.10	1	11/11/2016 00:04
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 00:04
Sulfate	150	10	100	11/12/2016 06:54

Surrogates	REC (%)	Limits
Formate	106	85-115

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1611506-005C	Water	11/10/2016 14:00	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	11/11/2016 00:44
Nitrate as NO ₃ ⁻	ND	0.45	1	11/11/2016 00:44
Nitrite as N	ND	0.10	1	11/11/2016 00:44
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 00:44
Sulfate	500	50	500	11/12/2016 07:33

Surrogates	REC (%)	Limits
Formate	106	85-115

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006C	Water	11/10/2016 12:45	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	3.7	0.10	1	11/11/2016 01:23
Nitrate as NO ₃ ⁻	16	0.45	1	11/11/2016 01:23
Nitrite as N	0.23	0.10	1	11/11/2016 01:23
Nitrite as NO ₂ ⁻	0.75	0.33	1	11/11/2016 01:23
Sulfate	100	10	100	11/12/2016 08:13

Surrogates	REC (%)	Limits
Formate	106	85-115

Analyst(s): AO

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1611506-007C	Water	11/10/2016 12:35	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	11/11/2016 02:02
Nitrate as NO ₃ ⁻	ND	0.45	1	11/11/2016 02:02
Nitrite as N	ND	0.10	1	11/11/2016 02:02
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 02:02
Sulfate	0.22	0.10	1	11/11/2016 02:02

Surrogates	REC (%)	Limits	Date Analyzed
Formate	105	85-115	11/11/2016 02:02

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008C	Water	11/10/2016 13:00	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.95	0.10	1	11/11/2016 02:41
Nitrate as NO ₃ ⁻	4.2	0.45	1	11/11/2016 02:41
Nitrite as N	0.16	0.10	1	11/11/2016 02:41
Nitrite as NO ₂ ⁻	0.51	0.33	1	11/11/2016 02:41
Sulfate	62	2.0	20	11/11/2016 10:31

Surrogates	REC (%)	Limits	Date Analyzed
Formate	106	85-115	11/11/2016 02:41

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1611506-009C	Water	11/10/2016 12:45	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	1.8	0.10	1	11/11/2016 03:20
Nitrate as NO ₃ ⁻	7.8	0.45	1	11/11/2016 03:20
Nitrite as N	ND	0.10	1	11/11/2016 03:20
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 03:20
Sulfate	140	10	100	11/12/2016 08:52

Surrogates	REC (%)	Limits	Date Analyzed
Formate	104	85-115	11/11/2016 03:20

Analyst(s): AO

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010C	Water	11/10/2016 13:15	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.92	0.10	1	11/11/2016 05:18
Nitrate as NO ₃ ⁻	4.1	0.45	1	11/11/2016 05:18
Nitrite as N	0.13	0.10	1	11/11/2016 05:18
Nitrite as NO ₂ ⁻	0.42	0.33	1	11/11/2016 05:18
Sulfate	57	2.0	20	11/11/2016 11:49

Surrogates	REC (%)	Limits	Date Analyzed
Formate	105	85-115	11/11/2016 05:18

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	1611506-011C	Water	11/10/2016 13:30	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.18	0.10	1	11/11/2016 05:57
Nitrate as NO ₃ ⁻	0.81	0.45	1	11/11/2016 05:57
Nitrite as N	ND	0.10	1	11/11/2016 05:57
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 05:57
Sulfate	5.1	2.0	20	11/11/2016 12:28

Surrogates	REC (%)	Limits	Date Analyzed
Formate	100	85-115	11/11/2016 05:57

Analyst(s): AO

Analytical Comments: b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012C	Water	11/10/2016 14:00	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	ND	0.10	1	11/11/2016 06:36
Nitrate as NO ₃ ⁻	ND	0.45	1	11/11/2016 06:36
Nitrite as N	ND	0.10	1	11/11/2016 06:36
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 06:36
Sulfate	0.18	0.10	1	11/11/2016 06:36

Surrogates	REC (%)	Limits	Date Analyzed
Formate	104	85-115	11/11/2016 06:36

Analyst(s): AO

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1611506-013C	Water	11/10/2016 13:50	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	0.91	0.10	1	11/11/2016 07:15
Nitrate as NO ₃ ⁻	4.0	0.45	1	11/11/2016 07:15
Nitrite as N	ND	0.10	1	11/11/2016 07:15
Nitrite as NO ₂ ⁻	ND	0.33	1	11/11/2016 07:15
Sulfate	57	2.0	20	11/11/2016 14:26

Surrogates	REC (%)	Limits	Date Analyzed
Formate	105	85-115	11/11/2016 07:15

Analyst(s): AO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014C	Water	11/10/2016 13:40	IC3	129710

Analytes	Result	RL	DF	Date Analyzed
Nitrate as N	5.5	2.0	20	11/11/2016 13:47
Nitrate as NO ₃ ⁻	24	9.0	20	11/11/2016 13:47
Nitrite as N	0.24	0.10	1	11/11/2016 07:55
Nitrite as NO ₂ ⁻	0.79	0.33	1	11/11/2016 07:55
Sulfate	130	10	100	11/12/2016 09:31

Surrogates	REC (%)	Limits	Date Analyzed
Formate	104	85-115	11/11/2016 07:55

Analyst(s): AO



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1611506-001B	Water	11/10/2016 12:30	GC16	129669

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 04:28
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 04:28
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 04:28
Ethylbenzene	ND	0.50	1	11/11/2016 04:28
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 04:28
Naphthalene	ND	0.50	1	11/11/2016 04:28
Toluene	ND	0.50	1	11/11/2016 04:28
Xylenes, Total	ND	0.50	1	11/11/2016 04:28

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	109	70-130	11/11/2016 04:28
Toluene-d8	99	70-130	11/11/2016 04:28
4-BFB	103	70-130	11/11/2016 04:28

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002B	Water	11/10/2016 13:00	GC16	129669

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 05:08
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 05:08
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 05:08
Ethylbenzene	ND	0.50	1	11/11/2016 05:08
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 05:08
Naphthalene	ND	0.50	1	11/11/2016 05:08
Toluene	ND	0.50	1	11/11/2016 05:08
Xylenes, Total	ND	0.50	1	11/11/2016 05:08

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	110	70-130	11/11/2016 05:08
Toluene-d8	101	70-130	11/11/2016 05:08
4-BFB	100	70-130	11/11/2016 05:08

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1611506-003B	Water	11/10/2016 13:25	GC16	129669

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 05:48
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 05:48
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 05:48
Ethylbenzene	ND	0.50	1	11/11/2016 05:48
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 05:48
Naphthalene	ND	0.50	1	11/11/2016 05:48
Toluene	ND	0.50	1	11/11/2016 05:48
Xylenes, Total	ND	0.50	1	11/11/2016 05:48

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	111	70-130	11/11/2016 05:48
Toluene-d8	100	70-130	11/11/2016 05:48
4-BFB	98	70-130	11/11/2016 05:48

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004B	Water	11/10/2016 13:40	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 13:10
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 13:10
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 13:10
Ethylbenzene	ND	0.50	1	11/11/2016 13:10
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 13:10
Naphthalene	ND	0.50	1	11/11/2016 13:10
Toluene	ND	0.50	1	11/11/2016 13:10
Xylenes, Total	ND	0.50	1	11/11/2016 13:10

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	110	70-130	11/11/2016 13:10
Toluene-d8	98	70-130	11/11/2016 13:10
4-BFB	95	70-130	11/11/2016 13:10

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1611506-005B	Water	11/10/2016 14:00	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 13:50
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 13:50
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 13:50
Ethylbenzene	ND	0.50	1	11/11/2016 13:50
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 13:50
Naphthalene	ND	0.50	1	11/11/2016 13:50
Toluene	ND	0.50	1	11/11/2016 13:50
Xylenes, Total	ND	0.50	1	11/11/2016 13:50

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	112	70-130	11/11/2016 13:50
Toluene-d8	100	70-130	11/11/2016 13:50
4-BFB	101	70-130	11/11/2016 13:50

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006B	Water	11/10/2016 12:45	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 14:30
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 14:30
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 14:30
Ethylbenzene	ND	0.50	1	11/11/2016 14:30
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 14:30
Naphthalene	ND	0.50	1	11/11/2016 14:30
Toluene	ND	0.50	1	11/11/2016 14:30
Xylenes, Total	ND	0.50	1	11/11/2016 14:30

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	112	70-130	11/11/2016 14:30
Toluene-d8	99	70-130	11/11/2016 14:30
4-BFB	97	70-130	11/11/2016 14:30

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1611506-007B	Water	11/10/2016 12:35	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 15:10
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 15:10
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 15:10
Ethylbenzene	ND	0.50	1	11/11/2016 15:10
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 15:10
Naphthalene	ND	0.50	1	11/11/2016 15:10
Toluene	ND	0.50	1	11/11/2016 15:10
Xylenes, Total	ND	0.50	1	11/11/2016 15:10

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	112	70-130	11/11/2016 15:10
Toluene-d8	99	70-130	11/11/2016 15:10
4-BFB	102	70-130	11/11/2016 15:10

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008B	Water	11/10/2016 13:00	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/11/2016 16:30
1,2-Dibromoethane (EDB)	ND	0.50	1	11/11/2016 16:30
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/11/2016 16:30
Ethylbenzene	ND	0.50	1	11/11/2016 16:30
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/11/2016 16:30
Naphthalene	ND	0.50	1	11/11/2016 16:30
Toluene	ND	0.50	1	11/11/2016 16:30
Xylenes, Total	ND	0.50	1	11/11/2016 16:30

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	113	70-130	11/11/2016 16:30
Toluene-d8	100	70-130	11/11/2016 16:30
4-BFB	96	70-130	11/11/2016 16:30

Analyst(s): KF

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1611506-009B	Water	11/10/2016 12:45	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 00:31
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 00:31
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 00:31
Ethylbenzene	ND	0.50	1	11/12/2016 00:31
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/12/2016 00:31
Naphthalene	ND	0.50	1	11/12/2016 00:31
Toluene	ND	0.50	1	11/12/2016 00:31
Xylenes, Total	ND	0.50	1	11/12/2016 00:31

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	112	70-130	11/12/2016 00:31
Toluene-d8	103	70-130	11/12/2016 00:31
4-BFB	97	70-130	11/12/2016 00:31

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010B	Water	11/10/2016 13:15	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 01:12
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 01:12
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 01:12
Ethylbenzene	ND	0.50	1	11/12/2016 01:12
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/12/2016 01:12
Naphthalene	ND	0.50	1	11/12/2016 01:12
Toluene	ND	0.50	1	11/12/2016 01:12
Xylenes, Total	ND	0.50	1	11/12/2016 01:12

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	112	70-130	11/12/2016 01:12
Toluene-d8	101	70-130	11/12/2016 01:12
4-BFB	94	70-130	11/12/2016 01:12

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	1611506-011B	Water	11/10/2016 13:30	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 19:55
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 19:55
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 19:55
Ethylbenzene	ND	0.50	1	11/12/2016 19:55
Methyl-t-butyl ether (MTBE)	3.7	0.50	1	11/12/2016 19:55
Naphthalene	ND	0.50	1	11/12/2016 19:55
Toluene	ND	0.50	1	11/12/2016 19:55
Xylenes, Total	ND	0.50	1	11/12/2016 19:55

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	110	70-130	11/12/2016 19:55
Toluene-d8	96	70-130	11/12/2016 19:55
4-BFB	123	70-130	11/12/2016 19:55

Analyst(s): KF

Analytical Comments: b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012B	Water	11/10/2016 14:00	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 02:32
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 02:32
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 02:32
Ethylbenzene	ND	0.50	1	11/12/2016 02:32
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/12/2016 02:32
Naphthalene	6.7	0.50	1	11/12/2016 02:32
Toluene	ND	0.50	1	11/12/2016 02:32
Xylenes, Total	ND	0.50	1	11/12/2016 02:32

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	115	70-130	11/12/2016 02:32
Toluene-d8	98	70-130	11/12/2016 02:32
4-BFB	110	70-130	11/12/2016 02:32

Analyst(s): KF

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/11/16-11/12/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1611506-013B	Water	11/10/2016 13:50	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 03:12
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 03:12
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 03:12
Ethylbenzene	ND	0.50	1	11/12/2016 03:12
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/12/2016 03:12
Naphthalene	ND	0.50	1	11/12/2016 03:12
Toluene	ND	0.50	1	11/12/2016 03:12
Xylenes, Total	ND	0.50	1	11/12/2016 03:12

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	114	70-130	11/12/2016 03:12
Toluene-d8	102	70-130	11/12/2016 03:12
4-BFB	98	70-130	11/12/2016 03:12

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014B	Water	11/10/2016 13:40	GC16	129727

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	11/12/2016 03:53
1,2-Dibromoethane (EDB)	ND	0.50	1	11/12/2016 03:53
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/12/2016 03:53
Ethylbenzene	ND	0.50	1	11/12/2016 03:53
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/12/2016 03:53
Naphthalene	ND	0.50	1	11/12/2016 03:53
Toluene	ND	0.50	1	11/12/2016 03:53
Xylenes, Total	ND	0.50	1	11/12/2016 03:53

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	114	70-130	11/12/2016 03:53
Toluene-d8	102	70-130	11/12/2016 03:53
4-BFB	97	70-130	11/12/2016 03:53

Analyst(s): KF



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/14/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1611506-001D	Water	11/10/2016 12:30	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	604	5.00	5	11/14/2016 10:15
Carbonate	124	5.00	5	11/14/2016 10:15
Bicarbonate	ND	5.00	5	11/14/2016 10:15
Hydroxide	480	5.00	5	11/14/2016 10:15

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002D	Water	11/10/2016 13:00	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	867	1.00	1	11/14/2016 10:11
Carbonate	ND	1.00	1	11/14/2016 10:11
Bicarbonate	867	1.00	1	11/14/2016 10:11
Hydroxide	ND	1.00	1	11/14/2016 10:11

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1611506-003D	Water	11/10/2016 13:25	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	646	1.00	1	11/14/2016 10:30
Carbonate	ND	1.00	1	11/14/2016 10:30
Bicarbonate	646	1.00	1	11/14/2016 10:30
Hydroxide	ND	1.00	1	11/14/2016 10:30

Analyst(s): HN

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/14/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004D	Water	11/10/2016 13:40	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	356	1.00	1	11/14/2016 10:38
Carbonate	ND	1.00	1	11/14/2016 10:38
Bicarbonate	356	1.00	1	11/14/2016 10:38
Hydroxide	ND	1.00	1	11/14/2016 10:38

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1611506-005D	Water	11/10/2016 14:00	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	237	1.00	1	11/14/2016 10:45
Carbonate	ND	1.00	1	11/14/2016 10:45
Bicarbonate	237	1.00	1	11/14/2016 10:45
Hydroxide	ND	1.00	1	11/14/2016 10:45

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006D	Water	11/10/2016 12:45	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	460	1.00	1	11/14/2016 10:56
Carbonate	ND	1.00	1	11/14/2016 10:56
Bicarbonate	460	1.00	1	11/14/2016 10:56
Hydroxide	ND	1.00	1	11/14/2016 10:56

Analyst(s): HN

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/14/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1611506-007D	Water	11/10/2016 12:35	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	763	1.00	1	11/14/2016 11:13
Carbonate	ND	1.00	1	11/14/2016 11:13
Bicarbonate	763	1.00	1	11/14/2016 11:13
Hydroxide	ND	1.00	1	11/14/2016 11:13

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008D	Water	11/10/2016 13:00	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	474	1.00	1	11/14/2016 11:42
Carbonate	ND	1.00	1	11/14/2016 11:42
Bicarbonate	474	1.00	1	11/14/2016 11:42
Hydroxide	ND	1.00	1	11/14/2016 11:42

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1611506-009D	Water	11/10/2016 12:45	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	833	1.00	1	11/14/2016 12:00
Carbonate	ND	1.00	1	11/14/2016 12:00
Bicarbonate	833	1.00	1	11/14/2016 12:00
Hydroxide	ND	1.00	1	11/14/2016 12:00

Analyst(s): HN

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/14/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010D	Water	11/10/2016 13:15	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	320	1.00	1	11/14/2016 12:08
Carbonate	ND	1.00	1	11/14/2016 12:08
Bicarbonate	320	1.00	1	11/14/2016 12:08
Hydroxide	ND	1.00	1	11/14/2016 12:08

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	1611506-011D	Water	11/10/2016 13:30	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	503	1.00	1	11/14/2016 12:19
Carbonate	ND	1.00	1	11/14/2016 12:19
Bicarbonate	503	1.00	1	11/14/2016 12:19
Hydroxide	ND	1.00	1	11/14/2016 12:19

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012D	Water	11/10/2016 14:00	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	544	1.00	1	11/14/2016 12:32
Carbonate	ND	1.00	1	11/14/2016 12:32
Bicarbonate	544	1.00	1	11/14/2016 12:32
Hydroxide	ND	1.00	1	11/14/2016 12:32

Analyst(s): HN

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/14/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

Total & Speciated Alkalinity as Calcium Carbonate

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1611506-013D	Water	11/10/2016 13:50	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	393	1.00	1	11/14/2016 12:42
Carbonate	ND	1.00	1	11/14/2016 12:42
Bicarbonate	393	1.00	1	11/14/2016 12:42
Hydroxide	ND	1.00	1	11/14/2016 12:42

Analyst(s): HN

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014D	Water	11/10/2016 13:40	Titrimo	129731

Analytes	Result	RL	DF	Date Analyzed
Total Alkalinity	792	1.00	1	11/14/2016 12:59
Carbonate	ND	1.00	1	11/14/2016 12:59
Bicarbonate	792	1.00	1	11/14/2016 12:59
Hydroxide	ND	1.00	1	11/14/2016 12:59

Analyst(s): HN



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-001A	Water	11/10/2016 12:30	GC3	129750
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	130		50	1	11/14/2016 19:32
MTBE	---		5.0	1	11/14/2016 19:32
Benzene	---		0.50	1	11/14/2016 19:32
Toluene	---		0.50	1	11/14/2016 19:32
Ethylbenzene	---		0.50	1	11/14/2016 19:32
Xylenes	---		1.5	1	11/14/2016 19:32
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	107		89-115		11/14/2016 19:32
<u>Analyst(s):</u> IA		<u>Analytical Comments:</u> d7,d9			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002A	Water	11/10/2016 13:00	GC3	129750
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	ND		50	1	11/13/2016 15:23
MTBE	---		5.0	1	11/13/2016 15:23
Benzene	---		0.50	1	11/13/2016 15:23
Toluene	---		0.50	1	11/13/2016 15:23
Ethylbenzene	---		0.50	1	11/13/2016 15:23
Xylenes	---		1.5	1	11/13/2016 15:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
aaa-TFT	116	S	89-115		11/13/2016 15:23
<u>Analyst(s):</u> IA		<u>Analytical Comments:</u> c11			



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-003A	Water	11/10/2016 13:25	GC3	129750
Analytes					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	94		50	1	11/14/2016 20:02
MTBE	---		5.0	1	11/14/2016 20:02
Benzene	---		0.50	1	11/14/2016 20:02
Toluene	---		0.50	1	11/14/2016 20:02
Ethylbenzene	---		0.50	1	11/14/2016 20:02
Xylenes	---		1.5	1	11/14/2016 20:02
Surrogates					
	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	100		89-115		11/14/2016 20:02
Analyst(s): IA			Analytical Comments: d7,d9		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004A	Water	11/10/2016 13:40	GC3	129750
Analytes					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	260		50	1	11/13/2016 16:26
MTBE	---		5.0	1	11/13/2016 16:26
Benzene	---		0.50	1	11/13/2016 16:26
Toluene	---		0.50	1	11/13/2016 16:26
Ethylbenzene	---		0.50	1	11/13/2016 16:26
Xylenes	---		1.5	1	11/13/2016 16:26
Surrogates					
	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	100		89-115		11/13/2016 16:26
Analyst(s): IA			Analytical Comments: d7,d9		

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-005A	Water	11/10/2016 14:00	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/13/2016 16:57
MTBE	---	5.0	1	11/13/2016 16:57
Benzene	---	0.50	1	11/13/2016 16:57
Toluene	---	0.50	1	11/13/2016 16:57
Ethylbenzene	---	0.50	1	11/13/2016 16:57
Xylenes	---	1.5	1	11/13/2016 16:57
Surrogates	REC (%)	Limits		
aaa-TFT	101	89-115		11/13/2016 16:57

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006A	Water	11/10/2016 12:45	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	210	50	1	11/13/2016 17:28
MTBE	---	5.0	1	11/13/2016 17:28
Benzene	---	0.50	1	11/13/2016 17:28
Toluene	---	0.50	1	11/13/2016 17:28
Ethylbenzene	---	0.50	1	11/13/2016 17:28
Xylenes	---	1.5	1	11/13/2016 17:28
Surrogates	REC (%)	Limits		
aaa-TFT	95	89-115		11/13/2016 17:28

Analyst(s): IA

Analytical Comments: d7



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-007A	Water	11/10/2016 12:35	GC3	129750
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	140		50	1	11/14/2016 21:04
MTBE	---		5.0	1	11/14/2016 21:04
Benzene	---		0.50	1	11/14/2016 21:04
Toluene	---		0.50	1	11/14/2016 21:04
Ethylbenzene	---		0.50	1	11/14/2016 21:04
Xylenes	---		1.5	1	11/14/2016 21:04
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	96		89-115		11/14/2016 21:04
<u>Analyst(s):</u> IA			<u>Analytical Comments:</u> d7		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008A	Water	11/10/2016 13:00	GC3	129750
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	ND		50	1	11/13/2016 18:29
MTBE	---		5.0	1	11/13/2016 18:29
Benzene	---		0.50	1	11/13/2016 18:29
Toluene	---		0.50	1	11/13/2016 18:29
Ethylbenzene	---		0.50	1	11/13/2016 18:29
Xylenes	---		1.5	1	11/13/2016 18:29
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	102		89-115		11/13/2016 18:29
<u>Analyst(s):</u> IA					

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-009A	Water	11/10/2016 12:45	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/13/2016 19:00
MTBE	---	5.0	1	11/13/2016 19:00
Benzene	---	0.50	1	11/13/2016 19:00
Toluene	---	0.50	1	11/13/2016 19:00
Ethylbenzene	---	0.50	1	11/13/2016 19:00
Xylenes	---	1.5	1	11/13/2016 19:00

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	103	89-115	11/13/2016 19:00

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010A	Water	11/10/2016 13:15	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/14/2016 22:36
MTBE	---	5.0	1	11/14/2016 22:36
Benzene	---	0.50	1	11/14/2016 22:36
Toluene	---	0.50	1	11/14/2016 22:36
Ethylbenzene	---	0.50	1	11/14/2016 22:36
Xylenes	---	1.5	1	11/14/2016 22:36

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	103	89-115	11/14/2016 22:36

Analyst(s): IA



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-011A	Water	11/10/2016 13:30	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	330	50	1	11/14/2016 23:06
MTBE	---	5.0	1	11/14/2016 23:06
Benzene	---	0.50	1	11/14/2016 23:06
Toluene	---	0.50	1	11/14/2016 23:06
Ethylbenzene	---	0.50	1	11/14/2016 23:06
Xylenes	---	1.5	1	11/14/2016 23:06

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	166	S	89-115	11/14/2016 23:06

Analyst(s): IA

Analytical Comments: d7,d9,b6,c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012A	Water	11/10/2016 14:00	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	330	50	1	11/15/2016 01:38
MTBE	---	5.0	1	11/15/2016 01:38
Benzene	---	0.50	1	11/15/2016 01:38
Toluene	---	0.50	1	11/15/2016 01:38
Ethylbenzene	---	0.50	1	11/15/2016 01:38
Xylenes	---	1.5	1	11/15/2016 01:38

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	97	89-115	11/15/2016 01:38

Analyst(s): IA

Analytical Comments: d7



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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	1611506-013A	Water	11/10/2016 13:50	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/13/2016 23:04
MTBE	---	5.0	1	11/13/2016 23:04
Benzene	---	0.50	1	11/13/2016 23:04
Toluene	---	0.50	1	11/13/2016 23:04
Ethylbenzene	---	0.50	1	11/13/2016 23:04
Xylenes	---	1.5	1	11/13/2016 23:04

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	105	89-115	11/13/2016 23:04

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014A	Water	11/10/2016 13:40	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	11/13/2016 22:34
MTBE	---	5.0	1	11/13/2016 22:34
Benzene	---	0.50	1	11/13/2016 22:34
Toluene	---	0.50	1	11/13/2016 22:34
Ethylbenzene	---	0.50	1	11/13/2016 22:34
Xylenes	---	1.5	1	11/13/2016 22:34

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	109	89-115	11/13/2016 22:34

Analyst(s): IA



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/13/16-11/15/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
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
TB	1611506-015A	Water	11/10/2016 08:00	GC3	129750

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	130	50	1	11/14/2016 00:05
MTBE	---	5.0	1	11/14/2016 00:05
Benzene	---	0.50	1	11/14/2016 00:05
Toluene	---	0.50	1	11/14/2016 00:05
Ethylbenzene	---	0.50	1	11/14/2016 00:05
Xylenes	---	1.5	1	11/14/2016 00:05

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	105	89-115	11/14/2016 00:05

Analyst(s): IA

Analytical Comments: d7



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1611506-001E	Water	11/10/2016 12:30	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	ND	H	1.0	1	---	11/10/2016 22:01

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002E	Water	11/10/2016 13:00	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	7100	H	100	100	---	11/10/2016 22:02

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1611506-003E	Water	11/10/2016 13:25	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	210	H	1.0	1	---	11/10/2016 22:03

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004E	Water	11/10/2016 13:40	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	23,000	H	100	100	---	11/10/2016 22:04

Analyst(s): AB

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1611506-005E	Water	11/10/2016 14:00	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	4400	H	100	100	---	11/10/2016 22:05

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006E	Water	11/10/2016 12:45	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	680	H	10	10	---	11/10/2016 22:06

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1611506-007E	Water	11/10/2016 12:35	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	1100	H	10	10	---	11/10/2016 22:07

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008E	Water	11/10/2016 13:00	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	2000	H	10	10	---	11/10/2016 22:08

Analyst(s): AB

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1611506-009E	Water	11/10/2016 12:45	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	1200	H	10	10	---	11/10/2016 22:09

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010E	Water	11/10/2016 13:15	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	2200	H	10	10	---	11/10/2016 22:10

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	1611506-011E	Water	11/10/2016 13:30	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	320	H	10	10	---	11/10/2016 22:11

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012E	Water	11/10/2016 14:00	MICROBIOLOGY	129653

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	160	H	1.0	1	---	11/10/2016 22:12

Analyst(s): AB

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml

Heterotrophic Bacteria

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1611506-013E	Water	11/10/2016 13:50	MICROBIOLOGY	129655

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	96	H	1.0	1	---	11/10/2016 22:14

Analyst(s): AB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014E	Water	11/10/2016 13:40	MICROBIOLOGY	129655

Analytes	Result	Qualifiers	RL	DF	95% Interval	Date Analyzed
Heterotrophic Bacteria	1800	H	10	10	---	11/10/2016 22:15

Analyst(s): AB

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2R	1611506-001A	Water	11/10/2016 12:30	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		1500	50	1	11/11/2016 16:26
TPH-Motor Oil (C18-C36)		1400	250	1	11/11/2016 16:26
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		102	70-130		11/11/2016 16:26
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e3,e7,e4/e11		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3R	1611506-002A	Water	11/10/2016 13:00	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	50	1	11/11/2016 17:44
TPH-Motor Oil (C18-C36)		ND	250	1	11/11/2016 17:44
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		99	70-130		11/11/2016 17:44
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1611506-003A	Water	11/10/2016 13:25	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		840	50	1	11/11/2016 22:29
TPH-Motor Oil (C18-C36)		590	250	1	11/11/2016 22:29
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		101	70-130		11/11/2016 22:29
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e3/e2,e7,e4		

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-6	1611506-004A	Water	11/10/2016 13:40	GC6A	129622
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	13,000		100	1	11/12/2016 03:40
TPH-Motor Oil (C18-C36)	11,000		500	1	11/12/2016 03:40
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		11/12/2016 03:40
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e3,e7,e11/e4		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1611506-005A	Water	11/10/2016 14:00	GC6A	129622
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	760		50	1	11/11/2016 23:47
TPH-Motor Oil (C18-C36)	720		250	1	11/11/2016 23:47
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		11/11/2016 23:47
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e2,e7,e8,e4		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-8	1611506-006A	Water	11/10/2016 12:45	GC6A	129622
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	150		50	1	11/12/2016 01:04
TPH-Motor Oil (C18-C36)	340		250	1	11/12/2016 01:04
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		11/12/2016 01:04
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7,e2,e4/e11		

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-10	1611506-007A	Water	11/10/2016 12:35	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		310	50	1	11/12/2016 02:22
TPH-Motor Oil (C18-C36)		ND	250	1	11/12/2016 02:22
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		106	70-130		11/12/2016 02:22
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e8,e4		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-13	1611506-008A	Water	11/10/2016 13:00	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	50	1	11/12/2016 13:12
TPH-Motor Oil (C18-C36)		ND	250	1	11/12/2016 13:12
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		101	70-130		11/12/2016 13:12
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-15	1611506-009A	Water	11/10/2016 12:45	GC6A	129622
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	50	1	11/12/2016 14:30
TPH-Motor Oil (C18-C36)		ND	250	1	11/12/2016 14:30
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		97	70-130		11/12/2016 14:30
<u>Analyst(s):</u> TK					

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-16	1611506-010A	Water	11/10/2016 13:15	GC6A	129622

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	11/12/2016 15:48
TPH-Motor Oil (C18-C36)	ND	250	1	11/12/2016 15:48

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	108	70-130	11/12/2016 15:48

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-17	1611506-011A	Water	11/10/2016 13:30	GC6A	129622

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	910,000	5000	100	11/11/2016 15:47
TPH-Motor Oil (C18-C36)	360,000	25,000	100	11/11/2016 15:47

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	103	70-130	11/11/2016 15:47

Analyst(s): TK

Analytical Comments: e3,e7,e11,b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-19	1611506-012A	Water	11/10/2016 14:00	GC6A	129622

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	900	50	1	11/12/2016 17:05
TPH-Motor Oil (C18-C36)	ND	250	1	11/12/2016 17:05

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	108	70-130	11/12/2016 17:05

Analyst(s): TK

Analytical Comments: e4,e2

(Cont.)

NELAP 4033ORELAP

Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 11/10/16 17:15
Date Prepared: 11/10/16
Project: 161110-ACI

WorkOrder: 1611506
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-20	1611506-013A	Water	11/10/2016 13:50	GC6A	129622

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/12/2016 18:23
TPH-Motor Oil (C18-C36)	ND	250	1	11/12/2016 18:23

Surrogates	REC (%)	Limits	Date Analyzed
C9	108	70-130	11/12/2016 18:23

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-21	1611506-014A	Water	11/10/2016 13:40	GC6A	129622

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	11/12/2016 19:41
TPH-Motor Oil (C18-C36)	ND	250	1	11/12/2016 19:41

Surrogates	REC (%)	Limits	Date Analyzed
C9	99	70-130	11/12/2016 19:41

Analyst(s): TK



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16 - 11/12/16
Date Analyzed: 11/10/16 - 11/12/16
Instrument: IC3
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129710
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L
Sample ID: MB/LCS/LCSD-129710

QC Summary Report for E300.1

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Nitrate as N	ND	0.10	-	-	-
Nitrate as NO ₃ ⁻	ND	0.45	-	-	-
Nitrite as N	ND	0.10	-	-	-
Nitrite as NO ₂ ⁻	ND	0.33	-	-	-
Sulfate	ND	0.10	-	-	-

Surrogate Recovery

Formate	0.0987		0.10	99	85-115
---------	--------	--	------	----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Nitrate as N	0.923	0.918	1	92	92	85-115	0	15
Nitrate as NO ₃ ⁻	4.09	4.06	4.4	93	92	85-115	0.602	15
Nitrite as N	0.956	0.961	1	96	96	85-115	0	15
Nitrite as NO ₂ ⁻	3.14	3.16	3.3	95	96	85-115	0.551	15
Sulfate	0.953	0.958	1	95	96	85-115	0.548	15

Surrogate Recovery

Formate	0.102	0.101	0.10	101	101	85-115	0	10
---------	-------	-------	------	-----	-----	--------	---	----



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16
Date Analyzed: 11/10/16
Instrument: GC16
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129669
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-129669
 1611466-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	185	10	200	-	92	46-155
tert-Amyl methyl ether (TAME)	ND	10.6	0.50	10	-	106	54-140
Benzene	ND	10.8	0.50	10	-	108	47-158
t-Butyl alcohol (TBA)	ND	40.8	2.0	40	-	102	42-140
Chlorobenzene	ND	9.72	0.50	10	-	97	43-157
1,2-Dibromoethane (EDB)	ND	9.78	0.50	10	-	98	44-155
1,2-Dichloroethane (1,2-DCA)	ND	10.2	0.50	10	-	102	66-125
1,1-Dichloroethene	ND	10.5	0.50	10	-	105	47-149
Diisopropyl ether (DIPE)	ND	11.1	0.50	10	-	111	57-136
Ethylbenzene	ND	10.6	0.50	10	-	107	60-152
Ethyl tert-butyl ether (ETBE)	ND	11.2	0.50	10	-	112	55-137
Methyl-t-butyl ether (MTBE)	ND	10.5	0.50	10	-	105	53-139
Naphthalene	ND	8.16	0.50	10	-	82	66-127
Toluene	ND	9.28	0.50	10	-	93	52-137
Trichloroethene	ND	10.1	0.50	10	-	101	43-157
Xylenes, Total	ND	33.2	0.50	30	-	111	70-130
Surrogate Recovery							
Dibromofluoromethane	27.4	27.7		25	110	111	70-130
Toluene-d8	25.4	25.2		25	102	101	70-130
4-BFB	2.58	2.64		2.5	103	106	70-130



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16
Date Analyzed: 11/10/16
Instrument: GC16
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129669
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-129669
 1611466-006AMS/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
Acetone	194	205	200	ND	96	101	66-158	5.88	20
tert-Amyl methyl ether (TAME)	10.5	10.6	10	ND	105	106	69-139	1.55	20
Benzene	10.3	10.4	10	ND	103	104	69-141	0.798	20
t-Butyl alcohol (TBA)	42.1	44.0	40	ND	105	110	41-152	4.57	20
Chlorobenzene	9.44	9.47	10	ND	94	95	77-120	0.339	20
1,2-Dibromoethane (EDB)	10.2	10.3	10	ND	101	103	76-135	1.47	20
1,2-Dichloroethane (1,2-DCA)	9.70	10.2	10	ND	97	102	73-139	5.29	20
1,1-Dichloroethene	10.1	10.2	10	ND	101	102	59-140	0.941	20
Diisopropyl ether (DIPE)	10.4	10.6	10	ND	104	106	72-140	2.01	20
Ethylbenzene	10.1	10.0	10	ND	101	101	73-128	0	20
Ethyl tert-butyl ether (ETBE)	10.6	10.8	10	ND	106	108	71-140	2.48	20
Methyl-t-butyl ether (MTBE)	10.3	10.6	10	ND	103	106	73-139	2.19	20
Naphthalene	9.46	9.99	10	ND	95	100	54-148	5.49	20
Toluene	8.86	8.91	10	ND	88	88	71-128	0	20
Trichloroethene	9.64	9.68	10	ND	96	97	64-132	0.496	20
Xylenes, Total	31.6	30.8	30	ND	105	103	70-130	2.59	20
Surrogate Recovery									
Dibromofluoromethane	27.5	27.7	25		110	111	73-131	0.610	20
Toluene-d8	25.0	25.1	25		100	100	72-117	0	20
4-BFB	2.67	2.67	2.5		107	107	74-116	0	20



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/11/16
Date Analyzed: 11/11/16
Instrument: GC16
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-129727
 1611526-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	181	10	200	-	91	46-155
tert-Amyl methyl ether (TAME)	ND	10.6	0.50	10	-	106	54-140
Benzene	ND	11.2	0.50	10	-	112	47-158
t-Butyl alcohol (TBA)	ND	38.5	2.0	40	-	96	42-140
Chlorobenzene	ND	10.1	0.50	10	-	101	43-157
1,2-Dibromoethane (EDB)	ND	10.0	0.50	10	-	100	44-155
1,2-Dichloroethane (1,2-DCA)	ND	10.7	0.50	10	-	107	66-125
1,1-Dichloroethene	ND	11.2	0.50	10	-	111	47-149
Diisopropyl ether (DIPE)	ND	10.7	0.50	10	-	107	57-136
Ethylbenzene	ND	11.0	0.50	10	-	110	60-152
Ethyl tert-butyl ether (ETBE)	ND	10.9	0.50	10	-	109	55-137
Methyl-t-butyl ether (MTBE)	ND	10.4	0.50	10	-	104	53-139
Naphthalene	ND	8.59	0.50	10	-	86	66-127
Toluene	ND	9.62	0.50	10	-	96	52-137
Trichloroethene	ND	10.5	0.50	10	-	105	43-157
Xylenes, Total	ND	33.7	0.50	30	-	112	70-130
Surrogate Recovery							
Dibromofluoromethane	27.8	27.6		25	111	110	70-130
Toluene-d8	25.2	25.4		25	101	101	70-130
4-BFB	2.60	2.60		2.5	104	104	70-130



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/11/16
Date Analyzed: 11/11/16
Instrument: GC16
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-129727
 1611526-001AMS/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
Acetone	206	200	200	ND	102	99	66-158	2.73	20
tert-Amyl methyl ether (TAME)	10.5	10.3	10	ND	105	103	69-139	1.67	20
Benzene	10.2	10.0	10	ND	102	100	69-141	1.99	20
t-Butyl alcohol (TBA)	43.9	42.7	40	ND	110	107	41-152	2.73	20
Chlorobenzene	9.28	8.98	10	ND	93	90	77-120	3.28	20
1,2-Dibromoethane (EDB)	10.1	10.0	10	ND	101	100	76-135	1.29	20
1,2-Dichloroethane (1,2-DCA)	10.2	9.88	10	ND	102	99	73-139	3.55	20
1,1-Dichloroethene	10.0	9.57	10	ND	100	96	59-140	4.45	20
Diisopropyl ether (DIPE)	10.5	10.3	10	ND	105	103	72-140	1.56	20
Ethylbenzene	9.83	9.50	10	ND	98	95	73-128	3.31	20
Ethyl tert-butyl ether (ETBE)	10.6	10.5	10	ND	106	105	71-140	0.979	20
Methyl-t-butyl ether (MTBE)	10.5	10.4	10	ND	105	104	73-139	1.58	20
Naphthalene	9.56	8.81	10	ND	96	88	54-148	8.17	20
Toluene	8.70	8.37	10	ND	86	83	71-128	3.83	20
Trichloroethene	9.61	9.27	10	ND	96	93	64-132	3.57	20
Xylenes, Total	30.0	29.9	30	ND	100	100	70-130	0	20
Surrogate Recovery									
Dibromofluoromethane	27.8	28.0	25		111	112	73-131	0.776	20
Toluene-d8	25.0	24.9	25		100	99	72-117	0.411	20
4-BFB	2.65	2.53	2.5		106	101	74-116	4.66	20



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/13/16
Date Analyzed: 11/13/16
Instrument: GC3
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129750
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-129750
 1611466-007AMS/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	57.7	40	60	-	96	85-112
MTBE	ND	9.40	5.0	10	-	94	74-127
Benzene	ND	9.58	0.50	10	-	96	81-124
Toluene	ND	9.97	0.50	10	-	100	79-131
Ethylbenzene	ND	10.3	0.50	10	-	103	86-127
Xylenes	ND	32.2	1.5	30	-	107	87-133
Surrogate Recovery							
aaa-TFT	10.2	10.1		10	102	101	87-117

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		5600	NR	NR	-	NR	
MTBE	NR	NR		ND<500	NR	NR	-	NR	
Benzene	NR	NR		1500	NR	NR	-	NR	
Toluene	NR	NR		110	NR	NR	-	NR	
Ethylbenzene	NR	NR		56	NR	NR	-	NR	
Xylenes	NR	NR		3900	NR	NR	-	NR	
Surrogate Recovery									
aaa-TFT	NR	NR			NR	NR	-	NR	



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/14/16
Date Analyzed: 11/14/16
Instrument: Titrino
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129731
Extraction Method: SM2320 B-1997
Analytical Method: SM2320 B
Unit: mg CaCO₃/L

QC Summary Report for Alkalinity

SampleID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1611506-014D	792	1	788	1	0.49	<20



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16
Date Analyzed: 11/10/16
Instrument: MICROBIOLOGY
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129653
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml
Sample ID: MB-129653

QC Summary Report for Heterotrophic Bacteria

Analyte	MB Result	RL			
Heterotrophic Bacteria	ND	1.0	-	-	-



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16
Date Analyzed: 11/10/16
Instrument: MICROBIOLOGY
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129655
Extraction Method: SM9215B
Analytical Method: SM9215AB
Unit: CFU/ml
Sample ID: MB-129655

QC Summary Report for Heterotrophic Bacteria

Analyte	MB Result	RL			
Heterotrophic Bacteria	ND	1.0	-	-	-

QA/QC Officer



Quality Control Report

Client: CKG Environmental
Date Prepared: 11/10/16
Date Analyzed: 11/10/16 - 11/14/16
Instrument: GC9b
Matrix: Water
Project: 161110-ACI

WorkOrder: 1611506
BatchID: 129622
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS/LCSD-129622

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	531		625	85	65-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1080	1020	1000	108	102	61-157	5.59	30
Surrogate Recovery								
C9	538	535	625	86	86	65-122	0	30



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1611506

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: 161110-ACI

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

Requested TAT: 5 days;

Date Received: 11/10/2016
Date Logged: 11/10/2016

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
1611506-001	MW-2R	Water	11/10/2016 12:30	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-002	MW-3R	Water	11/10/2016 13:00	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-003	MW-5	Water	11/10/2016 13:25	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-004	MW-6	Water	11/10/2016 13:40	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-005	MW-7	Water	11/10/2016 14:00	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-006	MW-8	Water	11/10/2016 12:45	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-007	MW-10	Water	11/10/2016 12:35	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-008	MW-13	Water	11/10/2016 13:00	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-009	MW-15	Water	11/10/2016 12:45	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-010	MW-16	Water	11/10/2016 13:15	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-011	MW-17	Water	11/10/2016 13:30	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-012	MW-19	Water	11/10/2016 14:00	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-013	MW-20	Water	11/10/2016 13:50	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-014	MW-21	Water	11/10/2016 13:40	<input type="checkbox"/>	C	B	D	A	E	A						
1611506-015	TB	Water	11/10/2016 08:00	<input type="checkbox"/>				A								

Test Legend:

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

Prepared by: Alexandra Iniguez

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.



WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL

Project: 161110-ACI

Work Order: 1611506

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 11/10/2016

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
1611506-001A	MW-2R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 12:30	5 days	Present	<input type="checkbox"/>	
1611506-001B	MW-2R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 12:30	5 days	Present	<input type="checkbox"/>	
1611506-001C	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.	<input type="checkbox"/>	11/10/2016 12:30	5 days	Present	<input type="checkbox"/>	
1611506-001D	MW-2R	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 12:30	5 days	Present	<input type="checkbox"/>	
1611506-001E	MW-2R	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 12:30	5 days	Present	<input type="checkbox"/>	
1611506-002A	MW-3R	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-002B	MW-3R	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-002C	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.	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL

Project: 161110-ACI

Work Order: 1611506

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 11/10/2016

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
1611506-002D	MW-3R	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-002E	MW-3R	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-003A	MW-5	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:25	5 days	Present	<input type="checkbox"/>	
1611506-003B	MW-5	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:25	5 days	Present	<input type="checkbox"/>	
1611506-003C	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.	<input type="checkbox"/>	11/10/2016 13:25	5 days	Present	<input type="checkbox"/>	
1611506-003D	MW-5	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:25	5 days	Present	<input type="checkbox"/>	
1611506-003E	MW-5	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:25	5 days	Present	<input type="checkbox"/>	
1611506-004A	MW-6	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-004B	MW-6	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Comments:

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

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
1611506-004C	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.	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-004D	MW-6	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-004E	MW-6	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-005A	MW-7	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-005B	MW-7	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-005C	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.	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-005D	MW-7	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-005E	MW-7	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-006A	MW-8	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

Comments:

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
1611506-006B	MW-8	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-006C	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.	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-006D	MW-8	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-006E	MW-8	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-007A	MW-10	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 12:35	5 days	Present	<input type="checkbox"/>	
1611506-007B	MW-10	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 12:35	5 days	Present	<input type="checkbox"/>	
1611506-007C	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.	<input type="checkbox"/>	11/10/2016 12:35	5 days	Present	<input type="checkbox"/>	
1611506-007D	MW-10	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 12:35	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

Comments:

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
1611506-007E	MW-10	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 12:35	5 days	Present	<input type="checkbox"/>	
1611506-008A	MW-13	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-008B	MW-13	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-008C	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.	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-008D	MW-13	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-008E	MW-13	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:00	5 days	Present	<input type="checkbox"/>	
1611506-009A	MW-15	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-009B	MW-15	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Comments:

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

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
1611506-009C	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.	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-009D	MW-15	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-009E	MW-15	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 12:45	5 days	Present	<input type="checkbox"/>	
1611506-010A	MW-16	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:15	5 days	Present	<input type="checkbox"/>	
1611506-010B	MW-16	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:15	5 days	Present	<input type="checkbox"/>	
1611506-010C	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.	<input type="checkbox"/>	11/10/2016 13:15	5 days	Present	<input type="checkbox"/>	
1611506-010D	MW-16	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:15	5 days	Present	<input type="checkbox"/>	
1611506-010E	MW-16	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:15	5 days	Present	<input type="checkbox"/>	
1611506-011A	MW-17	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:30	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

Comments:

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
1611506-011B	MW-17	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:30	5 days	Present	<input type="checkbox"/>	
1611506-011C	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.	<input type="checkbox"/>	11/10/2016 13:30	5 days	Present	<input type="checkbox"/>	
1611506-011D	MW-17	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:30	5 days	Present	<input type="checkbox"/>	
1611506-011E	MW-17	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:30	5 days	Present	<input type="checkbox"/>	
1611506-012A	MW-19	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-012B	MW-19	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-012C	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.	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-012D	MW-19	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

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

Project: 161110-ACI

Work Order: 1611506
QC Level: LEVEL 2
Date Logged: 11/10/2016

Comments:

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
1611506-012E	MW-19	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 14:00	5 days	Present	<input type="checkbox"/>	
1611506-013A	MW-20	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:50	5 days	Present	<input type="checkbox"/>	
1611506-013B	MW-20	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:50	5 days	Present	<input type="checkbox"/>	
1611506-013C	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.	<input type="checkbox"/>	11/10/2016 13:50	5 days	Present	<input type="checkbox"/>	
1611506-013D	MW-20	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:50	5 days	Present	<input type="checkbox"/>	
1611506-013E	MW-20	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:50	5 days	Present	<input type="checkbox"/>	
1611506-014A	MW-21	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-014B	MW-21	Water	SW8260B (VOCs) <1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Benzene, Ethylbenzene, Methyl-t-butyl ether (MTBE), Naphthalene, Toluene,	2	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	

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.



WORK ORDER SUMMARY

Client Name: CKG ENVIRONMENTAL

Project: 161110-ACI

Work Order: 1611506

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 11/10/2016

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
1611506-014C	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.	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-014D	MW-21	Water	SM2320B (Alkalinity)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-014E	MW-21	Water	Pour Plate - Heterotrophic Bacteria	1	120mL w/Na2S2O3	<input type="checkbox"/>	11/10/2016 13:40	5 days	Present	<input type="checkbox"/>	
1611506-015A	TB	Water	SW8021B/8015Bm (G/MBTEX)	1	VOA w/ HCl	<input type="checkbox"/>	11/10/2016 8:00	5 days	Present	<input type="checkbox"/>	

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.

BLAINE

TECH SERVICES, INC.

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

16115000

CONDUCT ANALYSIS TO DETECT											
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 HO	**PCBs (8082A) - SEE NOTE					
X	X	X	X	X	X						
X	X	X	X	X	X	X					
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X						
X	X	X	X	X	X	X					
X	X	X	X	X	X						

LAB McC Campbell DHS # _____

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

EPA RWQCB REGION _____
 LIA
 OTHER

CHAIN OF CUSTODY
 BTS # 161110-AC1

CLIENT CKG Environmental

SITE Owens Brockway Glass Plant

3600 Alameda Avenue

Oakland, CA

MATRIX	CONTAINERS
S= SOIL W=H ₂ O	TOTAL

SAMPLE I.D.	DATE	TIME	MATRIX	CONTAINERS
<u>MW-2R</u>	<u>11/10/16</u>	<u>1230</u>	<u>W</u>	<u>9</u>
<u>MW-3R</u>		<u>1300</u>	<u>W</u>	<u>10</u>
<u>MW-5</u>		<u>1325</u>	<u>W</u>	<u>9</u>
<u>MW-6</u>		<u>1340</u>	<u>W</u>	<u>9</u>
<u>MW-7</u>		<u>1400</u>	<u>W</u>	<u>9</u>
<u>MW-8</u>		<u>1245</u>	<u>W</u>	<u>9</u>
<u>MW-10</u>		<u>1235</u>	<u>W</u>	<u>9</u>
<u>MW-13</u>		<u>1300</u>	<u>W</u>	<u>9</u>
<u>MW-15</u>		<u>1245</u>	<u>W</u>	<u>10</u>
<u>MW-16</u>		<u>1315</u>	<u>W</u>	<u>9</u>

C = COMPOSITE ALL CONTAINERS

SPECIAL INSTRUCTIONS

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

****PCB's:** Filter first and analyze filtered sediment for PCB's by 8082A with Soxhlet extraction **IF** there is enough sediment in the sample for the analysis.

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

ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #

SAMPLING COMPLETED DATE 11/10/16 TIME 1400 SAMPLING PERFORMED BY ALEX C., COLIN R., KRIS K.

RESULTS NEEDED NO LATER THAN _____ Per Client

RELEASED BY [Signature] DATE 11/10/16 TIME 1450 RECEIVED BY [Signature] DATE 11-10-18 TIME 1450

RELEASED BY [Signature] DATE 11-10-16 TIME 1715 RECEIVED BY [Signature] DATE 11/10/16 TIME 1715

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

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

1611506

CONDUCT ANALYSIS TO DETECT

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

CHAIN OF CUSTODY
 BTS # 161110-AC1

CLIENT CKG Environmental

SITE Owens Brockway Glass Plant
3600 Alameda Avenue
Oakland, CA

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT										ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
						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 HO	**PCBs (8082A) - SEE NOTE							
MW-17	11/10/16	1330	W	9	MIX	X	X	X	X	X	X								
MW-19		1400	W	10		X	X	X	X	X	X	X							
MW-20		1350	W	9		X	X	X	X	X	X								
MW-21		1340	W	10		X	X	X	X	X	X	X							
TB		0800	W	2	VOAS	X													

SPECIAL INSTRUCTIONS
 Invoice and Report to : CKG Environmental Attn: Chris Kennedy
 808 Zinfandel Lane, St Helena, CA 94574
 PCB's: Filter first and analyze filtered sediment for PCB's by 8082A with Soxhlet extraction **IF there is enough sediment in the sample for the analysis.
 Dissolved product in samples MW-2 and MW-6
 Please provide EDF and PDF of results

SAMPLING COMPLETED 11/10/16 1400 SAMPLING PERFORMED BY ALEX C., KRIS K., COLIN R RESULTS NEEDED NO LATER THAN _____ Per Client

RELEASED BY <u>[Signature]</u>	DATE <u>11/10/16</u>	TIME <u>1450</u>	RECEIVED BY <u>[Signature]</u>	DATE <u>11-10-16</u>	TIME <u>1450</u>
RELEASED BY <u>[Signature]</u>	DATE <u>11-10-16</u>	TIME <u>1715</u>	RECEIVED BY <u>[Signature]</u>	DATE <u>11/10/16</u>	TIME <u>1715</u>

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



Sample Receipt Checklist

Client Name: **CKG Environmental**
 Project Name: **161110-ACI**

Date and Time Received: **11/10/2016 17:15**
 Date Logged: **11/10/2016**
 Received by: **Alexandra Iniguez**
 Logged by: **Alexandra Iniguez**

WorkOrder No: **1611506** Matrix: Water
 Carrier: Bernie Cummins (MAI Courier)

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
8/8/2016 through 8/12/2016

Date		8/8/2016		8/9/2016		8/10/2016		8/11/2016		8/12/2016			
Time		10:50 AM		8:45 AM		5:00 PM		3:50 PM		System Down*			
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	1B	5.2	6.0	4.9	7.0	4.2	7.0	5.0	7.0	N/A	N/A	4.8	6.8
	2A	11.1	8.0	11.3	8.0	11.4	8.0	11.3	8.0	N/A	N/A	11.3	8.0
	6A	6.6	9.0	7.1	8.0	7.1	8.0	6.8	9.0	N/A	N/A	6.9	8.5
	Total	22.9	23.0	23.3	23.0	22.7	23.0	23.1	24.0	N/A	N/A	23.0	23.3
2	3	6.2	14.0	7.3	13.0	7.7	13.0	7.5	13.0	N/A	N/A	7.2	13.3
	7	7.7	9.0	7.6	9.0	7.5	9.0	7.6	9.0	N/A	N/A	7.6	9.0
	17*	7.0	11.0	7.0	11.0	7.0	11.0	7.0	11.0	N/A	N/A	7.0	11.0
	Total	20.9	34.0	21.9	33.0	22.2	33.0	22.1	33.0	N/A	N/A	21.8	33.3
3	1A	8.3	11.0	7.7	10.0	9.4	9.0	8.1	9.0	N/A	N/A	8.4	9.8
	6B	8.7	15.0	8.3	15.0	8.0	15.0	8.0	15.0	N/A	N/A	8.3	15.0
	16	5.2	11.0	5.0	11.0	3.4	11.0	3.7	11.0	N/A	N/A	4.3	11.0
	Total	22.2	37.0	21.0	36.0	20.8	35.0	19.8	35.0	N/A	N/A	21.0	35.8
4	8	5.0	6.0	5.1	6.0	5.2	6.0	5.3	5.3	N/A	N/A	5.2	5.8
	9	5.4	4.0	5.0	4.0	5.6	5.0	5.7	5.6	N/A	N/A	5.4	4.7
	10	6.8	4.0	6.8	4.0	7.0	4.0	7.0	7.0	N/A	N/A	6.9	4.8
	15	8.9	9.0	8.3	9.0	8.2	9.0	8.5	8.4	N/A	N/A	8.5	8.9
Total	26.1	23.0	25.2	23.0	26.0	24.0	26.5	26.3	N/A	N/A	26.0	24.1	
5	11	7.5	12.0	5.2	12.0	4.9	12.0	5.2	12.0	N/A	N/A	5.7	12.0
	12	7.0	11.0	6.8	11.0	6.8	12.0	6.6	11.0	N/A	N/A	6.8	11.3
	13	11.2	10.0	11.1	10.0	11.3	11.0	11.2	10.0	N/A	N/A	11.2	10.3
	Total	25.7	33.0	23.1	33.0	23.0	35.0	23.0	33.0	N/A	N/A	23.7	33.5
6	2B	5.2	12.0	4.8	12.0	4.5	13.0	4.2	12.0	N/A	N/A	4.7	12.3
	4	4.0	11.0	4.2	11.0	4.4	11.0	4.5	10.0	N/A	N/A	4.3	10.8
	5	6.6	12.0	7.2	12.0	7.3	12.0	7.0	12.0	N/A	N/A	7.0	12.0
	14	5.5	7.0	5.1	8.0	5.2	8.0	5.4	8.0	N/A	N/A	5.3	7.8
Total	21.3	42.0	21.3	43.0	21.4	44.0	21.1	42.0	N/A	N/A	21.3	42.8	

* = IW-17 Flowmeter is not transmitting reading to HMI Panel. System down due to water in landscape area well vaults.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
8/15/2016 through 8/19/2016

Date		8/15/2016		8/16/2016		8/17/2016		8/18/2016		8/19/2016			
Time		System Down*		8:45 AM		5:00 PM		3:50 PM		5:10 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	6A	N/A	N/A	10.5	16.0	10.8	11.0	10.6	10.0	11.3	10.0	10.8	11.8
	7	N/A	N/A	10.2	15.0	9.3	11.0	9.1	11.0	10.4	10.0	9.8	11.8
	17	N/A	N/A	16.6	18.0	17.1	15.0	16.8	15.0	18.2	16.0	17.2	16.0
	Total	N/A	N/A	37.3	49.0	37.2	37.0	36.5	36.0	39.9	36.0	37.7	39.5
2	6B	N/A	N/A	10.5	25.0	12.6	22.0	13.4	20.0	13.2	22.0	12.4	22.3
	14	N/A	N/A	6.7	17.0	9.7	12.0	8.9	9.0	9.0	9.0	8.6	11.8
	16	N/A	N/A	9.4	12.0	9.7	12.0	9.9	12.0	10.2	12.0	9.8	12.0
	Total	N/A	N/A	26.6	54.0	32.0	46.0	32.2	41.0	32.4	43.0	30.8	46.0
3	8	N/A	N/A	9.6	8.0	6.1	5.0	4.8	6.0	3.9	6.0	6.1	6.3
	9	N/A	N/A	10.2	9.0	9.3	6.0	9.2	6.0	9.5	5.0	9.6	6.5
	10	N/A	N/A	11.6	5.0	10.6	5.0	9.4	7.0	9.7	7.0	10.3	6.0
	15	N/A	N/A	13.1	21.0	17.2	14.0	19.5	13.0	18.7	13.0	17.1	15.3
Total	N/A	N/A	44.5	43.0	43.2	30.0	42.9	32.0	41.8	31.0	43.1	34.0	
4	11	N/A	N/A	11.0	14.0	7.9	11.0	8.7	11.0	8.0	11.0	8.9	11.8
	12	N/A	N/A	12.8	20.0	18.0	18.0	19.2	17.0	19.8	17.0	17.5	18.0
	13	N/A	N/A	11.9	14.0	13.4	12.0	13.6	11.0	13.7	11.0	13.2	12.0
	Total	N/A	N/A	35.7	48.0	39.3	41.0	41.5	39.0	41.5	39.0	39.5	41.8
5*	1A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.1	16.0	14.1	16.0
	1B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.0	8.0	10.0	8.0
	2A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.7	16.0	12.7	16.0
	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	17.0	12.5	17.0
	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49.3	57.0	49.3	57.0

* = System down on 8/15/16 due to water in well vaults. System was restarted after source area was isolated. Group 5 added on 8/19/2016. Potential group changes will occur once underground PVC pipe damage is repaired next week, and all wells are restarted.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
8/22/2016

	Date	8/22/2016			
	Time	11:45 AM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	6A	10.8	9.0	10.8	9.0
	7	9.3	9.0	9.3	9.0
	17	17.8	15.0	17.8	15.0
	Total	37.9	33.0	37.9	33.0
2	6B	13.7	20.0	13.7	20.0
	14	9.0	9.0	9.0	9.0
	16	10.2	10.3	10.2	10.3
	Total	32.9	39.3	32.9	39.3
3	8	4.5	5.0	4.5	5.0
	9	8.6	5.0	8.6	5.0
	10	10.4	4.0	10.4	4.0
	15	17.8	13.0	17.8	13.0
Total	41.3	27.0	41.3	27.0	
4	11	8.0	11.0	8.0	11.0
	12	20.1	16.0	20.1	16.0
	13	13.6	10.0	13.6	10.0
	Total	41.7	64.0	41.7	64.0
5	1A	13.7	14.0	13.7	14.0
	1B	8.5	10.0	8.5	10.0
	2B	11.9	15.0	11.9	15.0
	3	13.4	16.0	10.8	10.8
Total	47.5	55.0	47.5	55.0	

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
8/23/2016 through 8/26/2016

		8/23/2016		8/24/2016		8/25/2016		8/26/2016			
		4:10 PM		8:45 AM		2:50 PM		3:50 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	9.1	10.0	8.0	11.0	7.5	10.0	7.7	10.0	8.1	10.3
	3	10.1	12.0	9.2	13.0	8.8	12.0	9.1	12.0	9.3	12.3
	5	5.7	11.0	4.7	11.0	4.9	10.0	4.9	10.0	5.0	10.5
	12	11.3	10.0	10.0	12.0	9.3	11.0	9.6	11.0	10.1	11.0
	13	8.4	8.0	10.7	11.0	10.4	10.0	10.5	10.0	10.0	9.8
	15	13.6	10.0	12.2	11.0	11.7	10.0	11.9	10.0	12.4	10.3
	Total		58.2	61.0	54.8	69.0	52.6	63.0	53.7	63.0	54.8
2	1B	10.3	8.0	6.2	7.0	6.0	6.0	6.1	7.0	7.2	7.0
	4*	N/A	N/A	7.6	15.0	8.2	13.0	8.4	12.0	8.1	13.3
	8	6.1	6.0	6.3	6.0	6.6	7.0	6.7	7.0	6.4	6.5
	10	11.4	3.0	10.0	4.0	9.8	4.0	9.9	4.0	10.3	3.8
	11	8.7	10.0	8.2	10.0	7.9	10.0	7.9	10.0	8.2	10.0
	14	7.9	7.0	8.6	7.0	8.1	7.0	8.4	7.0	8.3	7.0
	16	8.3	11.0	8.9	12.0	8.8	11.0	8.8	11.0	8.7	11.3
Total		52.7	45.0	55.8	61.0	55.4	58.0	56.2	58.0	55.0	55.5
3	2A	9.5	9.0	5.5	8.0	6.4	6.3	4.7	7.0	6.5	7.6
	2B	5.1	10.0	4.2	12.0	8.0	7.9	7.0	11.0	6.1	10.2
	6A	6.8	9.0	7.5	11.0	7.3	10.0	7.3	10.0	7.2	10.0
	6B	7.7	15.0	7.9	16.0	8.2	15.0	8.3	15.0	8.0	15.3
	7	7.4	7.0	7.9	8.0	7.7	8.0	7.7	8.0	7.7	7.8
	9	5.6	5.0	8.7	4.0	8.2	4.0	8.2	6.0	7.7	4.8
	17	8.2	10.0	9.4	12.0	10.2	11.0	8.9	11.0	9.2	11.0
Total		50.3	65.0	51.1	71.0	56.0	62.2	52.1	68.0	52.4	66.6

* = IW-4 was on standby due to ball valve being closed in well vault during last week's O&M.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
8/29/2016 through 9/2/2016

		8/29/2016		8/30/2016		8/31/2016		9/1/2016		9/2/2016			
		9:30 AM		12:15 PM		9:45 AM		2:05 PM		4:15 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	8.7	10.0	8.3	10.0	7.0	10.0	7.2	10.0	7.1	11.0	7.8	10.0
	3	9.3	12.0	7.8	12.0	7.9	12.0	8.1	12.0	7.9	11.0	8.3	12.0
	5	5.1	9.0	5.0	10.0	4.9	9.0	5.0	10.0	5.0	10.0	5.0	9.5
	12	9.7	11.0	9.5	11.0	9.4	11.0	9.3	12.0	9.5	12.0	9.5	11.3
	13	10.9	10.0	10.8	10.0	10.7	10.0	10.7	10.0	10.8	10.0	10.8	10.0
	15	12.3	11.0	12.0	11.0	11.9	10.0	12.0	11.0	11.8	11.0	12.1	10.8
	Total		56.0	63.0	53.4	64.0	51.8	62.0	52.3	65.0	52.1	65.0	53.4
2	1B	6.1	6.0	5.5	7.0	5.9	6.0	5.7	7.0	5.7	7.0	5.8	6.5
	4	8.7	12.0	8.7	11.0	8.6	11.0	8.8	11.0	8.7	11.0	8.7	11.3
	8	7.9	7.0	8.0	7.0	8.3	6.0	7.9	7.0	7.5	7.0	8.0	6.8
	10	8.6	8.0	8.7	6.0	8.8	6.0	8.8	6.0	8.8	6.0	8.7	6.5
	11	8.0	10.0	7.2	10.0	7.5	10.0	7.3	10.0	7.2	10.0	7.5	10.0
	14	8.4	7.0	8.1	7.0	8.1	7.0	8.2	6.0	8.2	7.0	8.2	6.8
	16	8.7	11.0	8.2	11.0	8.5	11.0	8.3	11.0	8.5	11.0	8.4	11.0
Total		56.4	61.0	54.4	59.0	55.7	57.0	55.0	58.0	54.6	59.0	55.4	58.8
3	2A	5.6	7.0	5.7	7.0	5.6	7.0	5.8	7.0	6.5	7.0	5.8	7.0
	2B	7.6	10.0	7.8	11.0	7.9	10.0	8.2	11.0	8.2	10.0	7.9	10.4
	6A	7.4	10.0	7.2	10.0	6.9	10.0	7.1	10.0	7.1	9.0	7.1	9.8
	6B	8.2	15.0	8.3	15.0	8.6	15.0	9.1	15.0	8.6	15.0	8.6	15.0
	7	7.8	8.0	7.7	8.0	7.7	8.0	7.9	8.0	7.7	8.0	7.8	8.0
	9	8.9	3.0	8.7	4.0	8.0	4.0	7.8	5.0	8.6	4.0	8.4	4.0
	17	5.9	11.0	5.3	11.0	4.2	11.0	4.1	11.0	3.3	11.0	4.6	11.0
Total		51.4	64.0	50.7	66.0	48.9	65.0	50.0	67.0	50.0	64.0	50.3	65.5

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/5/2016 through 9/9/2016

Date		9/5/2016		9/6/2016		9/7/2016		9/8/2016		9/9/2016			
Time		Labor Day		3:30 PM		2:00 PM		5:00 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	–	–	6.5	11.0	6.0	10.0	5.8	11.0	6.2	11.0	6.1	10.8
	3	–	–	6.8	11.0	5.4	11.0	5.8	11.0	7.9	11.0	6.5	11.0
	5	–	–	4.1	10.0	3.9	10.0	4.0	10.0	4.7	10.0	4.2	10.0
	12	–	–	8.8	11.0	8.5	11.0	8.5	11.0	8.6	11.0	8.6	11.0
	13	–	–	9.8	10.0	9.6	10.0	9.3	10.0	9.7	10.0	9.6	10.0
	15	–	–	11.0	11.0	10.5	10.0	10.8	10.0	10.8	11.0	10.8	10.5
	Total		0.0	0.0	47.0	64.0	43.9	62.0	44.2	63.0	47.9	64.0	45.8
2	1B	–	–	5.2	7.0	4.9	6.0	5.0	7.0	5.2	6.0	5.1	6.5
	4	–	–	8.0	11.0	7.7	10.0	8.2	10.0	8.0	11.0	8.0	10.5
	8	–	–	7.9	6.0	7.4	7.0	7.7	6.0	7.3	7.0	7.6	6.5
	10	–	–	8.2	6.0	7.9	5.0	8.0	5.0	8.0	6.0	8.0	5.5
	11	–	–	6.4	10.0	5.4	10.0	5.9	10.0	6.1	10.0	6.0	10.0
	14	–	–	7.5	7.0	7.3	7.0	7.8	6.0	7.6	7.0	7.6	6.8
	16	–	–	7.8	11.0	7.6	10.0	7.6	11.0	7.7	11.0	7.7	10.8
Total		0.0	0.0	51.0	58.0	48.2	55.0	50.2	55.0	49.9	58.0	49.8	56.5
3	2A	–	–	4.8	7.0	4.5	7.0	4.6	7.0	4.6	7.0	4.6	7.0
	2B	–	–	6.5	9.0	5.9	9.0	5.9	9.0	5.7	10.0	6.0	9.3
	6A	–	–	7.0	9.0	6.8	9.0	6.9	9.0	6.9	9.0	6.9	9.0
	6B	–	–	8.3	14.0	8.0	14.0	8.0	14.0	8.1	14.0	8.1	14.0
	7	–	–	7.2	7.0	7.0	7.0	7.1	7.0	7.2	7.0	7.1	7.0
	9	–	–	8.4	3.0	8.0	3.0	8.5	2.0	8.7	2.0	8.4	2.5
	17	–	–	6.3	9.0	6.3	9.0	7.3	10.0	7.7	10.0	6.9	9.5
Total		0.0	0.0	48.5	58.0	46.5	58.0	48.3	58.0	48.9	59.0	48.1	58.3

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/12/2016 through 9/16/2016

		9/12/2016		9/13/2016		9/14/2016		9/15/2016		9/16/2016			
		7:00 PM		11:15 AM		2:00 PM		5:00 PM		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	8.5	10.0	8.2	10.0	6.3	10.0	7.1	10.0	6.1	10.0	6.9	10.0
	3	8.0	11.0	6.9	11.0	5.4	11.0	5.5	11.0	9.0	11.0	6.7	11.0
	5	4.4	10.0	4.1	10.0	4.4	10.0	4.3	10.0	4.3	10.0	4.3	10.0
	12	8.6	11.0	8.8	11.0	8.6	11.0	8.2	11.0	8.5	11.0	8.5	11.0
	13	10.0	10.0	10.1	10.0	9.6	10.0	10.0	10.0	9.8	10.0	9.9	10.0
	15	11.0	10.0	11.1	10.0	9.1	10.0	9.0	10.0	10.8	10.0	10.0	10.0
	Total		50.5	62.0	49.2	62.0	43.4	62.0	44.1	62.0	48.5	62.0	46.3
2	1B	3.0	7.0	3.0	7.0	4.9	6.0	5.0	6.0	3.0	6.0	4.0	6.3
	4	7.8	10.0	7.8	10.0	7.5	10.0	7.8	11.0	7.6	10.0	7.7	10.3
	8	7.3	7.0	7.6	7.0	7.2	7.0	7.2	7.0	7.0	7.0	7.3	7.0
	10	8.0	5.0	8.1	5.0	7.8	5.0	7.9	5.0	7.9	6.0	7.9	5.3
	11	5.7	10.0	6.0	10.0	5.5	10.0	5.5	10.0	5.6	10.0	5.7	10.0
	14	7.5	7.0	7.6	7.0	7.3	6.0	7.3	7.0	7.3	7.0	7.4	6.8
	16	7.5	11.0	7.5	11.0	7.1	10.0	7.5	10.0	7.4	10.0	7.4	10.3
Total		46.8	57.0	47.6	57.0	47.3	54.0	48.2	56.0	45.8	56.0	47.2	55.8
3	2A	4.1	7.0	4.2	7.0	4.3	7.0	4.5	7.0	4.1	7.0	4.3	7.0
	2B	5.5	9.0	5.4	9.0	5.1	9.0	5.3	9.0	5.3	9.0	5.3	9.0
	6A	6.5	9.0	6.5	9.0	6.5	9.0	6.7	9.0	6.8	9.0	6.6	9.0
	6B	8.0	13.0	8.0	14.0	8.0	13.0	8.2	13.0	7.8	13.0	8.0	13.3
	7	7.1	8.0	7.0	8.0	6.8	8.0	6.8	8.0	7.0	8.0	6.9	8.0
	9	8.2	2.0	8.3	2.0	7.9	2.0	8.1	2.0	8.0	2.0	8.1	2.0
	17	9.2	10.0	8.8	10.0	10.3	10.0	8.9	9.0	7.1	10.0	8.8	9.8
Total		48.6	58.0	48.2	59.0	48.9	58.0	48.5	57.0	46.1	58.0	47.9	58.0

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/19/2016 through 9/23/2016

Date		9/19/2016		9/20/2016		9/21/2016		9/22/2016		9/23/2016			
Time		5:45 PM		3:30 PM		8:00 AM		4:00 PM		10:30 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	5.1	10.0	5.5	10.0	8.5	11.0	8.3	11.0	7.0	11.0	6.9	10.6
	3	6.3	11.0	7.8	11.0	8.8	12.0	8.7	12.0	8.3	12.0	8.0	11.6
	5	3.9	11.0	4.1	11.0	4.3	11.0	4.3	11.0	4.4	11.0	4.2	11.0
	12	7.7	11.0	8.5	11.0	8.9	12.0	8.7	12.0	8.5	12.0	8.5	11.6
	13	8.8	11.0	9.6	10.0	10.1	10.0	10.0	10.0	10.0	10.0	9.7	10.2
	15	9.8	11.0	10.7	10.0	11.2	11.0	10.5	11.0	10.7	11.0	10.6	10.8
	Total		41.6	65.0	46.2	63.0	51.8	67.0	50.5	67.0	48.9	67.0	47.8
2	1B	4.7	7.0	5.0	7.0	5.4	7.0	5.3	7.0	5.1	7.0	5.1	7.0
	4	7.6	11.0	7.8	11.0	8.1	11.0	7.6	11.0	7.3	11.0	7.7	11.0
	8	6.2	8.0	7.8	5.0	8.3	5.0	7.5	5.0	7.8	6.0	7.5	5.8
	10	7.6	7.0	7.9	7.0	9.0	4.0	8.7	4.0	8.5	5.0	8.3	5.4
	11	4.7	11.0	5.8	10.0	6.3	10.0	6.1	10.0	6.0	10.0	5.8	10.2
	14	7.2	7.0	7.5	7.0	7.8	7.0	7.7	7.0	7.5	7.0	7.5	7.0
	16	7.3	8.0	7.5	11.0	7.7	11.0	7.8	11.0	7.5	10.0	7.6	10.2
Total		45.3	59.0	49.3	58.0	52.6	55.0	50.7	55.0	49.7	56.0	49.5	56.6
3	2A	3.5	7.0	3.7	7.0	3.9	7.0	3.7	7.0	3.5	7.0	3.7	7.0
	2B	4.2	9.0	4.5	9.0	4.4	9.0	4.3	9.0	4.1	9.0	4.3	9.0
	6A	6.2	9.0	6.3	9.0	6.3	9.0	6.3	9.0	6.2	9.0	6.3	9.0
	6B	8.0	13.0	7.7	14.0	8.0	13.0	8.0	13.0	7.9	13.0	7.9	13.2
	7	6.7	8.0	6.9	8.0	6.6	8.0	6.7	8.0	6.6	8.0	6.7	8.0
	9	8.2	2.0	7.7	3.0	7.7	3.0	7.3	3.0	7.5	3.0	7.7	2.8
	17	9.0	10.0	8.7	10.0	11.4	11.0	11.2	11.0	10.5	11.0	10.2	10.6
Total		45.8	58.0	45.5	60.0	48.3	60.0	47.5	60.0	46.3	60.0	46.7	59.6

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
9/26/2016 through 9/30/2016

Date		9/26/2016		9/27/2016		9/28/2016*		9/29/2016		9/30/2016			
Time		11:00 AM		9:30 AM		12:50 PM		2:30 PM		12:50 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	5.6	10.0	6.1	10.0	5.8	8.0	5.7	8.0	6.8	10.0	6.0	9.2
	3	8.0	11.0	8.8	11.0	6.0	10.0	6.2	10.0	5.4	12.0	6.9	10.8
	5	4.1	11.0	4.2	11.0	3.1	10.0	3.5	10.0	4.0	12.0	3.8	10.8
	12	8.5	11.0	8.6	11.0	7.3	10.0	7.0	10.0	8.8	11.0	8.0	10.6
	13	9.6	10.0	9.8	10.0	8.3	9.0	8.3	9.0	9.7	10.0	9.1	9.6
	15	10.9	10.0	10.8	10.0	10.4	9.0	10.5	9.0	11.1	10.0	10.7	9.6
	Total		46.7	63.0	48.3	63.0	40.9	56.0	41.2	56.0	45.8	65.0	44.6
2	1B	4.0	7.0	5.0	6.0	3.8	7.0	5.0	7.0	4.7	7.0	4.5	6.8
	4	7.2	10.0	7.2	11.0	6.9	10.0	7.6	11.0	7.3	11.0	7.2	10.6
	8	7.2	6.0	6.5	8.0	6.1	8.0	6.6	9.0	6.7	8.0	6.6	7.8
	10	8.1	4.0	8.0	4.0	7.8	5.0	8.2	4.0	8.2	4.0	8.1	4.2
	11	5.6	10.0	5.7	10.0	5.8	9.0	5.7	10.0	5.7	10.0	5.7	9.8
	14	7.3	7.0	7.3	7.0	7.3	5.0	7.4	7.0	7.3	7.0	7.3	6.6
	16	7.2	10.0	7.3	10.0	6.8	10.0	7.4	10.0	7.3	10.0	7.2	10.0
Total		46.6	54.0	47.0	56.0	44.5	54.0	47.9	58.0	47.2	57.0	46.6	55.8
3	2A	3.2	7.0	3.7	7.0	3.3	7.0	3.5	7.0	3.9	7.0	3.5	7.0
	2B	4.0	9.0	4.3	9.0	4.2	9.0	4.6	9.0	4.9	9.0	4.4	9.0
	6A	6.1	9.0	6.2	9.0	6.7	9.0	6.3	9.0	6.3	9.0	6.3	9.0
	6B	7.7	13.0	7.9	13.0	8.2	13.0	7.8	14.0	7.8	14.0	7.9	13.4
	7	6.5	8.0	6.6	8.0	6.3	9.0	6.7	8.0	6.8	8.0	6.6	8.2
	9	7.4	2.0	7.4	3.0	7.9	2.0	8.4	4.0	6.6	5.0	7.5	3.2
	17	9.5	10.0	11.6	10.0	12.5	10.0	12.1	10.0	12.2	10.0	11.6	10.0
Total		44.4	58.0	47.7	59.0	49.1	59.0	49.4	61.0	48.5	62.0	47.8	59.8

* - Monthly Site O&M Visit

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/3/2016 through 10/4/2016

		10/3/2016*		10/4/2016			
		5:00 PM		2:55 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)
1	1A	6.9	10.0	6.0	10.0	6.5	10.0
	3	6.2	12.0	5.1	12.0	5.7	12.0
	5	4.3	11.0	4.0	12.0	4.2	11.5
	12	8.6	11.0	8.5	11.0	8.6	11.0
	13	10.0	10.0	9.8	10.0	9.9	10.0
	15	11.2	10.0	11.1	10.0	11.2	10.0
	Total		47.2	64.0	44.5	65.0	45.9
2	2A	8.2	7.0	8.1	7.0	8.2	7.0
	4	6.9	10.0	6.8	11.0	6.9	10.5
	8	6.1	9.0	5.8	9.0	6.0	9.0
	10	7.7	5.0	7.7	5.0	7.7	5.0
	11	5.6	10.0	5.5	10.0	5.6	10.0
	14	7.2	7.0	7.3	6.0	7.3	6.5
	16	7.4	10.0	7.0	10.0	7.2	10.0
Total		49.1	58.0	48.2	58.0	48.7	58.0
3	1B	1.6	7.0	1.6	7.0	1.6	7.0
	2B	4.5	9.0	4.7	9.0	4.6	9.0
	6A	6.4	10.0	6.3	9.0	6.4	9.5
	6B	8.2	13.0	8.0	13.0	8.1	13.0
	7	6.6	9.0	6.8	8.0	6.7	8.5
	9	8.4	4.0	7.9	4.0	8.2	4.0
	17	12.3	10.0	10.7	10.0	11.5	10.0
Total		48.0	62.0	46.0	60.0	47.0	61.0

* - Modified well grouping. Moved IW-1B to group 3, and IW-2A to group 2.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/5/2016 through 10/7/2016

		Date	10/5/2016*		10/6/2016		10/7/2016			
		Time	4:15 PM		10:10 AM		3:30 PM			
Group #	Well	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Flowrate (SCFM)	Pressure (PSI)	Avg. Flowrate (SCFM)	Avg. Pressure (PSI)	
1	1A	7.4	10.0	7.3	10.0	5.8	10.0	6.8	10.0	
	3	5.2	12.0	5.1	12.0	5.0	11.0	5.1	11.7	
	5	4.1	11.0	4.1	11.0	3.9	12.0	4.0	11.3	
	12	8.6	12.0	8.6	11.0	8.3	11.0	8.5	11.3	
	13	10.0	10.0	9.8	10.0	9.6	10.0	9.8	10.0	
	15	11.2	11.0	11.0	10.0	10.7	10.0	11.0	10.3	
	Total		46.5	66.0	45.9	64.0	43.3	64.0	45.2	64.7
2	1B	5.0	7.0	5.0	6.0	4.9	7.0	5.0	6.7	
	4	7.0	11.0	7.0	11.0	7.2	11.0	7.1	11.0	
	8	6.8	8.0	6.6	8.0	5.8	10.0	6.4	8.7	
	10	7.9	5.0	7.9	5.0	8.0	5.0	7.9	5.0	
	11	5.7	10.0	5.9	10.0	5.8	10.0	5.8	10.0	
	14	7.5	7.0	7.5	6.0	7.4	6.0	7.5	6.3	
	16	7.5	10.0	7.0	10.0	7.2	10.0	7.2	10.0	
Total		47.4	58.0	46.9	56.0	46.3	59.0	46.9	57.7	
3	2A	4.0	7.0	4.1	7.0	3.4	7.0	3.8	7.0	
	2B	5.2	9.0	5.2	9.0	5.1	9.0	5.2	9.0	
	6A	6.4	9.0	6.2	9.0	6.4	9.0	6.3	9.0	
	6B	8.2	13.0	7.9	13.0	8.3	13.0	8.1	13.0	
	7	6.8	9.0	6.8	8.0	6.5	8.0	6.7	8.3	
	9	7.7	4.0	8.2	4.0	8.6	3.0	8.2	3.7	
	17	10.6	9.0	10.5	9.0	10.4	9.0	10.5	9.0	
Total		48.9	60.0	48.9	59.0	48.7	58.0	48.8	59.0	

* - Reverted to original well groupings.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/10/2016 through 10/14/2016

		10/10/2016		10/11/2016		10/12/2016		10/13/2016		10/14/2016			
		9:30 AM		2:45 PM		2:45 PM		8:45 AM		3:30 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	7.7	10.0	7.6	10.0	8.5	10.0	7.1	10.0	7.0	11.0	7.6	10.2
	3	5.3	12.0	9.0	12.0	8.5	12.0	5.2	12.0	5.5	12.0	6.7	12.0
	5	4.1	12.0	4.1	12.0	4.2	12.0	3.8	12.0	3.9	12.0	4.0	12.0
	12	8.6	11.0	8.8	11.0	8.8	11.0	8.3	11.0	8.4	12.0	8.6	11.2
	13	9.9	10.0	10.1	10.0	10.2	10.0	9.6	10.0	9.4	11.0	9.8	10.2
	15	11.1	10.0	11.1	11.0	11.2	11.0	10.7	10.0	10.7	11.0	11.0	10.6
	Total		46.7	65.0	50.7	66.0	51.4	66.0	44.7	65.0	44.9	69.0	47.7
2	1B	5.2	7.0	5.1	7.0	5.2	7.0	5.2	6.0	5.2		5.2	6.8
	4	7.2	11.0	7.2	11.0	7.2	11.0	7.1	11.0	7.2	11.0	7.2	11.0
	8	6.0	11.0	6.5	9.0	6.5	9.0	6.8	8.0	6.3	10.0	6.4	9.4
	10	8.2	5.0	8.2	5.0	8.3	5.0	8.3	5.0	8.3	5.0	8.3	5.0
	11	6.4	10.0	6.0	10.0	6.0	10.0	6.3	10.0	6.2	11.0	6.2	10.2
	14	7.7	6.0	7.6	6.0	7.4	7.0	7.6	6.0	7.5	7.0	7.6	6.4
	16	7.5	10.0	7.5	10.0	7.7	10.0	7.4	11.0	7.5	11.0	7.5	10.4
Total		48.2	60.0	48.1	58.0	48.3	59.0	48.7	57.0	48.2	55.0	48.3	57.8
3	2A	3.7	7.0	3.9	7.0	3.9	7.0	3.9	7.0	3.7	7.0	3.8	7.0
	2B	5.1	9.0	4.9	9.0	5.0	9.0	7.5	9.0	4.4	9.0	5.4	9.0
	6A	6.2	9.0	6.3	9.0	6.3	9.0	6.2	9.0	6.1	9.0	6.2	9.0
	6B	8.2	13.0	8.1	13.0	7.9	13.0	8.4	13.0	8.3	13.0	8.2	13.0
	7	6.6	9.0	6.6	8.0	6.7	8.0	6.6	9.0	6.6	9.0	6.6	8.6
	9	9.0	3.0	9.4	3.0	9.1	3.0	9.7	3.0	9.7	3.0	9.4	3.0
	17	10.8	9.0	10.6	9.0	10.6	9.0	10.8	10.0	10.9	10.0	10.7	9.4
Total		49.6	59.0	49.8	58.0	49.5	58.0	53.1	60.0	49.7	60.0	50.3	59.0

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/17/2016 through 10/21/2016

Date		10/17/2016		10/18/2016		10/19/2016		10/20/2016		10/21/2016			
Time		5:45 PM		8:45 AM		4:15 PM		11:00 AM		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	4.9	11.0	4.7	11.0	5.8	10.0	5.2	10.0	5.8	10.0	5.3	10.4
	3	6.5	12.0	6.7	12.0	6.9	12.0	6.6	12.0	7.0	12.0	6.7	12.0
	5	3.3	12.0	3.3	12.0	3.6	12.0	3.2	12.0	3.7	12.0	3.4	12.0
	12	8.0	11.0	8.5	11.0	8.4	12.0	8.3	11.0	8.5	11.0	8.3	11.2
	13	8.4	10.0	9.0	10.0	9.0	10.0	8.8	10.0	9.4	10.0	8.9	10.0
	15	10.0	11.0	10.4	10.0	10.5	10.0	10.1	10.0	10.7	10.0	10.3	10.2
	Total		41.1	67.0	42.6	66.0	44.2	66.0	42.2	65.0	45.1	65.0	43.0
2	1B	2.8	7.0	5.1	7.0	2.7	7.0	4.8	6.0	2.8	7.0	3.6	6.8
	4	6.4	11.0	7.1	12.0	6.8	12.0	6.6	11.0	6.6	11.0	6.7	11.4
	8	5.8	9.0	5.7	10.0	5.5	9.0	5.5	9.0	5.7	10.0	5.6	9.4
	10	7.8	5.0	7.8	6.0	7.7	5.0	8.3	4.0	7.7	5.0	7.9	5.0
	11	5.4	11.0	6.1	10.0	5.6	10.0	5.6	10.0	5.7	10.0	5.7	10.2
	14	7.1	7.0	7.5	7.0	7.3	7.0	7.1	7.0	7.2	7.0	7.2	7.0
	16	6.8	10.0	6.9	11.0	6.6	11.0	6.4	10.0	6.9	10.0	6.7	10.4
Total		42.1	60.0	46.2	63.0	42.2	61.0	44.3	57.0	42.6	60.0	43.5	60.2
3	2A	3.9	7.0	4.2	7.0	2.9	7.0	3.3	7.0	3.1	7.0	3.5	7.0
	2B	3.1	9.0	3.8	9.0	3.5	9.0	3.7	9.0	3.8	9.0	3.6	9.0
	6A	6.2	10.0	6.3	10.0	6.1	10.0	6.2	9.0	6.1	10.0	6.2	9.8
	6B	8.4	13.0	8.3	13.0	8.1	13.0	7.9	13.0	8.2	13.0	8.2	13.0
	7	6.6	9.0	6.7	9.0	6.5	9.0	6.4	8.0	6.4	9.0	6.5	8.8
	9	9.7	3.0	9.5	3.0	9.1	3.0	8.7	3.0	8.6	4.0	9.1	3.2
	17	8.5	10.0	7.8	10.0	9.5	10.0	9.6	10.0	10.6	10.0	9.2	10.0
Total		46.4	61.0	46.6	61.0	45.7	61.0	45.8	59.0	46.8	62.0	46.3	60.8

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/24/2016 through 10/28/2016

		10/24/2016		10/25/2016		10/26/2016		10/27/2016		10/28/2016			
		11:45 AM		2:00 PM		3:00 PM		4:15 PM		11:45 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	5.2	10.0	5.7	10.0	5.5	10.0	5.4	10.0	5.5	10.0	5.5	10.0
	3	6.5	12.0	6.6	12.0	6.5	12.0	6.5	13.0	6.5	12.0	6.5	12.2
	5	3.3	13.0	3.4	12.0	3.5	13.0	3.4	12.0	3.5	12.0	3.4	12.4
	12	8.3	11.0	8.5	11.0	8.2	11.0	8.3	11.0	8.1	11.0	8.3	11.0
	13	8.5	11.0	8.9	10.0	8.7	10.0	8.8	10.0	8.8	10.0	8.7	10.2
	15	10.3	10.0	10.5	10.0	10.5	10.0	10.4	10.0	10.5	10.0	10.4	10.0
	Total		42.1	67.0	43.6	65.0	42.9	66.0	42.8	66.0	42.9	65.0	42.9
2	1B	3.4	7.0	2.9	7.0	2.7	7.0	4.9	7.0	4.0	7.0	3.6	7.0
	4	7.1	11.0	6.8	11.0	7.0	11.0	6.9	11.0	7.0	12.0	7.0	11.2
	8	6.2	8.0	6.3	9.0	6.0	8.0	6.1	9.0	6.2	9.0	6.2	8.6
	10	7.6	6.0	7.6	5.0	7.6	5.0	7.6	5.0	7.6	5.0	7.6	5.2
	11	5.9	10.0	5.8	10.0	5.8	10.0	5.9	10.0	5.8	10.0	5.8	10.0
	14	7.3	7.0	7.3	6.0	7.1	7.0	7.2	7.0	7.3	7.0	7.2	6.8
	16	6.9	10.0	6.7	10.0	6.7	10.0	6.8	10.0	6.8	10.0	6.8	10.0
Total		44.4	59.0	43.4	58.0	42.9	58.0	45.4	59.0	44.7	60.0	44.2	58.8
3	2A	3.4	7.0	3.6	7.0	3.5	7.0	3.9	7.0	3.9	7.0	3.7	7.0
	2B	3.8	9.0	4.2	9.0	4.0	9.0	4.2	9.0	4.3	9.0	4.1	9.0
	6A	6.2	10.0	6.2	9.0	6.0	9.0	6.3	9.0	6.1	9.0	6.2	9.2
	6B	8.2	13.0	7.8	13.0	8.1	13.0	8.1	13.0	7.9	13.0	8.0	13.0
	7	6.6	9.0	6.7	8.0	6.4	9.0	6.6	9.0	6.5	9.0	6.6	8.8
	9	8.4	4.0	8.5	4.0	8.5	4.0	8.5	4.0	8.6	4.0	8.5	4.0
	17	9.4	10.0	8.9	9.0	8.6	10.0	8.8	10.0	8.7	10.0	8.9	9.8
Total		46.0	62.0	45.9	59.0	45.1	61.0	46.4	61.0	46.0	61.0	45.9	60.8

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
10/31/2016 through 11/04/2016

Date		10/31/2016		11/1/2016		11/2/2016		11/3/2016*		11/4/2016			
Time		2:00 PM		3:30 PM		3:30 PM		N/A		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	3.9	10.0	4.9	11.0	5.0	11.0	-	-	5.5	11.0	4.8	10.8
	3	5.1	12.0	6.4	13.0	5.5	12.0	-	-	6.8	12.0	6.0	12.3
	5	2.6	12.0	3.3	13.0	3.1	12.0	-	-	3.4	12.0	3.1	12.3
	12	6.9	10.0	7.8	11.0	7.3	11.0	-	-	8.1	11.0	7.5	10.8
	13	6.9	10.0	7.9	11.0	7.9	11.0	-	-	8.5	10.0	7.8	10.5
	15	9.3	9.0	10.6	10.0	10.5	10.0	-	-	10.7	10.0	10.3	9.8
	Total		34.7	63.0	40.9	69.0	39.3	67.0	0.0	0.0	43.0	66.0	39.5
2	1B	3.2	7.0	3.2	7.0	3.3	7.0	-	-	4.0	7.0	3.4	7.0
	4	6.2	11.0	7.0	11.0	7.2	11.0	-	-	7.2	11.0	6.9	11.0
	8	5.3	8.0	6.3	9.0	6.0	9.0	-	-	5.9	10.0	5.9	9.0
	10	6.9	6.0	7.5	7.0	7.3	7.0	-	-	7.6	6.0	7.3	6.5
	11	5.2	9.0	5.9	10.0	5.5	10.0	-	-	6.2	10.0	5.7	9.8
	14	6.7	7.0	7.1	8.0	7.0	8.0	-	-	7.3	7.0	7.0	7.5
	16	5.9	10.0	7.2	10.0	7.0	10.0	-	-	7.0	10.0	6.8	10.0
Total		39.4	58.0	44.2	62.0	43.3	62.0	0.0	0.0	45.2	61.0	43.0	60.8
3	2A	3.7	7.0	3.9	7.0	4.2	7.0	-	-	4.3	7.0	4.0	7.0
	2B	3.5	10.0	3.5	10.0	4.1	9.0	-	-	4.2	9.0	3.8	9.5
	6A	6.3	10.0	6.3	10.0	6.5	9.0	-	-	6.3	9.0	6.4	9.5
	6B	8.2	14.0	8.3	14.0	8.1	14.0	-	-	8.2	14.0	8.2	14.0
	7	7.0	8.0	7.0	9.0	7.0	8.0	-	-	7.1	8.0	7.0	8.3
	9	8.1	5.0	7.6	5.0	6.7	6.0	-	-	6.5	6.0	7.2	5.5
	17	15.0	9.0	10.0	9.0	11.0	9.0	-	-	12.5	9.0	12.1	9.0
Total		51.8	63.0	46.6	64.0	47.6	62.0	0.0	0.0	49.1	62.0	48.8	62.8

* = Temporary remote communication error with system interface. Most likely due to temporary maintenance from Verizon.

Daily Monitoring Form
CKG - Biobarrier Groundwater Treatment
11/7/2016 through 11/11/2016

Date		11/7/2016		11/8/2016		11/9/2016*		11/10/2016		11/11/2016			
Time		2:00 PM		3:30 PM		13:50 PM		12:15 PM		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	7.2	10.0	7.1	10.0	7.8	10.0	8.1	11.0	9.4	11.0	7.9	10.4
	3	6.9	12.0	7.0	12.0	8.1	12.0	8.6	13.0	7.9	13.0	7.7	12.4
	5	3.5	12.0	3.4	12.0	4.7	12.0	4.4	12.0	4.4	13.0	4.1	12.2
	12	8.0	11.0	8.1	11.0	9.8	11.0	10.1	12.0	10.1	12.0	9.2	11.4
	13	9.1	10.0	9.2	10.0	8.5	10.0	8.6	10.0	8.6	9.0	8.8	9.8
	15	10.5	11.0	10.5	11.0	6.2	10.0	5.8	9.0	5.8	9.0	7.8	10.0
	Total		45.2	66.0	45.3	66.0	45.1	65.0	45.6	67.0	46.2	67.0	45.5
2	1B	3.2	7.0	3.3	7.0	3.6	7.0	4.3	7.0	3.3	6.0	3.5	6.8
	4	7.2	11.0	7.2	11.0	6.2	11.0	7.5	12.0	7.7	12.0	7.2	11.4
	8	5.9	11.0	5.8	11.0	5.7	12.0	6.3	11.0	6.6	11.0	6.1	11.2
	10	7.3	7.0	7.5	7.0	7.8	7.0	8.0	6.0	8.5	6.0	7.8	6.6
	11	6.5	9.0	6.5	9.0	6.6	9.0	6.8	10.0	7.3	9.0	6.7	9.2
	14	7.1	5.0	7.0	5.0	6.9	6.0	7.1	6.0	7.5	6.0	7.1	5.6
	16	6.8	11.0	6.7	11.0	7.2	11.0	7.5	11.0	7.9	11.0	7.2	11.0
Total		44.0	61.0	44.0	61.0	44.0	63.0	47.5	63.0	48.8	61.0	45.7	61.8
3	2A	3.0	7.0	2.9	7.0	4.9	7.0	4.8	7.0	5.3	7.0	4.2	7.0
	2B	4.5	9.0	4.4	9.0	5.3	10.0	4.4	10.0	10.7	10.0	5.9	9.6
	6A	6.9	8.0	7.0	8.0	7.8	8.0	7.8	7.0	7.8	8.0	7.5	7.8
	6B	8.0	13.0	8.5	13.0	8.7	13.0	8.6	13.0	9.2	13.0	8.6	13.0
	7	7.1	8.0	6.9	8.0	7.4	8.0	7.3	8.0	7.6	8.0	7.3	8.0
	9	6.8	5.0	7.1	5.0	7.8	6.0	7.9	5.0	8.4	6.0	7.6	5.4
	17	12.1	8.0	12.2	8.0	5.0	6.0	6.3	7.0	5.3	7.0	8.2	7.2
Total		48.4	58.0	49.0	58.0	46.9	58.0	47.1	57.0	54.3	59.0	49.1	58.0

* = November 2016 Monthly O&M