

July 31, 2017

RECEIVED

By Alameda County Environmental Health 9:22 am, Aug 04, 2017

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

**Subject: RO0000289
ADDENDUM TO REPORT OF SOIL VAPOR INVESTIGATION
LIMITED SOIL AND GROUNDWATER ASSESSMENT, OIL/WATER
SEPARATOR, AND SOIL VAPOR ASSESSMENT IN KNOWN
EXCAVATION AREAS,
OWENS-BROCKWAY GLASS CONTAINER FACILITY, OAKLAND,
CALIFORNIA.**

Dear Ms. Roe:

Owens-Brockway Glass Container Corporation is pleased to submit the attached Addendum to the Soil Vapor Investigation Report for the above site.

I declare under penalty of perjury that the information and/or recommendations contained in the attached report and work plan 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

July 31, 2017

Ms. Dilan Roe
County of Alameda Health Care Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: RO0289
**ADDENDUM TO REPORT OF SOIL VAPOR INVESTIGATION,
LIMITED SOIL AND GROUNDWATER ASSESSMENT, OIL/WATER
SEPARATOR, AND SOIL VAPOR ASSESSMENT IN KNOWN
EXCAVATION AREAS,
OWENS-BROCKWAY GLASS CONTAINER FACILITY, OAKLAND,
CALIFORNIA.**

Dear Ms. Roe:

CKG Environmental, Inc. (CKG) is pleased to provide this brief report of findings of a limited soil, groundwater and soil vapor assessment completed as an addendum to the *Report of Soil Vapor Investigation*, dated March 31, 2017. CKG completed the scope of work proposed in the *Work Plan to Complete a Limited Soil and Groundwater Assessment*, dated February 25, 2017. The scope of work included installing four soil borings in the vicinity of the oil water separator at the closed Owens-Brockway Glass Container, Inc. facility at 3600 Alameda Avenue in Oakland California, (Plate 1 of the March 31 report). These borings were installed to assess the magnitude of potential soil and groundwater impacts by volatile organic constituents (VOCs) at the oil water separator.

Although not included in the February 25, 2017 work plan, CKG also installed and sampled two additional nested soil vapor probes utilizing protocols established in the *Revised Work Plan to Complete a Soil Vapor Investigation*, dated October 13, 2016. These two nested probes were installed within existing excavation backfills to assess the extent to which excavating impacted soil and backfilling with clean soil may reduce soil vapor concentrations. Installing soil vapor probes for this purpose was discussed in a meeting with ACDEH on March 31, 2017.

OBJECTIVE OF THE WORK

Based on findings of CKGs March 31 Soil Vapor Investigation CKG discovered Volatile Organic Constituents (VOCs) at a number of locations. Of particular interest was SV-40 which was installed adjacent to the oil water separator to assess the potential that the oil water separator may have been a source of VOCs because it receives drainage from the entire plant via pumping from the basement. VOCs were detected as follows:

- trichloroethene was detected at $610 \mu\text{g}/\text{m}^3$ which exceeds the ESL of $240 \mu\text{g}/\text{m}^3$;
- 1,1-dichloroethane was detected at $1600 \mu\text{g}/\text{m}^3$ which exceeds the ESL of $880 \mu\text{g}/\text{m}^3$;

- vinyl chloride was detected at 2900 $\mu\text{g}/\text{m}^3$ which exceeds the ESL of 4.7 $\mu\text{g}/\text{m}^3$; and
- benzene was detected at 69 $\mu\text{g}/\text{m}^3$ which exceeds the ESL of 48 $\mu\text{g}/\text{m}^3$

Soil borings were installed to confirm the presence of VOCs in soil and groundwater in the vicinity of the soil vapor probe.

In addition to VOCs the soil vapor investigation showed the presence of elevated petroleum hydrocarbons quantified as gasoline and diesel, and elevated methane in soil vapor in the areas of known petroleum hydrocarbon releases. There were two excavated areas within the petroleum hydrocarbon impacted area which had been backfilled with clean soil. The objective in installing vapor probes in the excavations was to assess the extent that removing impacted soil might reduce methane and petroleum hydrocarbon concentrations in the soil vapor.

FIELD ACTIVITIES

Soil and Groundwater Sampling

On May 5, 2017 CKG utilized a Geoprobe direct push rig operated by Gregg Drilling to install four soil borings, and two soil vapor probes at the locations illustrated on Plate A2. Gregg Drilling advanced the borings by a combination of hand auger from 0 to 5 feet below grade and a direct push drill rig to approximately 15 feet below grade.

CKG collected soil samples at depths of 5, 10 and 15 feet below grade, as described in Appendix A. A groundwater sample also was collected at each boring using a Hydropunch sampler as described in Appendix A.

The samples were transported under chain-of-custody documentation to McCampbell Analytical of Martinez, California to be analyzed for the following:

- VOCs and benzene, toluene, ethylbenzene and xylenes using USEPA Method 8260B

Soil Vapor Probe Installation and Sampling

Two multiple completion soil vapor probes (5-foot and 10-foot depths) were installed and sampled per the protocol contained in Appendix B and as specified in greater detail in CKG's *Revised Work Plan to Complete a Soil Vapor Investigation at the Closed Owens-Brockway Glass Container, Inc. Facility at 3600 Alameda Avenue in Oakland California*, dated October 13, 2016. Probe locations are shown on Plate A2.

Soil vapor samples were analyzed as follows:

- Total petroleum hydrocarbons as gasoline (TPHg) using United States Environmental Protection Agency (USEPA) Method TO-15 as well as diesel (TPHd) and polynuclear aromatic hydrocarbons (PAHs) using USEPA Method TO-17;

- Methane using American Society for Testing and Materials (ASTM) Method D1946-90. (One sample from each TPH assessment location, varying between the five-foot and ten-foot samples for a total of 36 methane samples)
- Oxygen and carbon dioxide using ASTM D1946 (in all 83 samples to evaluate potential biodegradation and natural attenuation)
- Helium using ASTM D1946 (in all 83 samples as a leak detection agent)

CKG will arrange for the characterization and disposal of the investigation-derived waste (IDW) generated by the boring activities. This IDW will be stored on the Site in labeled 55-gallon pending proper offsite disposal.

FINDINGS

Soil and Groundwater Samples

VOCs were not detected above laboratory reporting limits in the soil samples analyzed. VOCs were detected in two of the four groundwater samples analyzed as summarized below

	B112	B113	B114	B115	MCL	ESL (Res.)	ESL (Com/Ind)
1,1-DCE µg/l	1.4	<0.5	6.0	<0.5	6	170	1400
1,1-DCA µg/l	1.4	<0.5	7.1	<0.5	5	20	180
TCE µg/l	<0.5	<0.5	1.4	<0.5	5	5.6	49
Toluene µg/l	<0.5	<0.5	0.56	<0.5	150	3600	30,000
Vinyl chloride µg/l	<0.5	<0.5	0.98	<0.5	0.5	0.061	0.53

1,1-DCA = 1,1-Dichloroethane 1,1-DCE = 1,1-Dichloroethene Result in Bold if it Exceeds MCL

TCE = Trichloroethene Res = residential Com/Ind = commercial/industrial

MCL – Maximum contaminant level (drinking water standard)

ESL – Environmental screening level, Regional Water Quality Control Board, San Francisco Bay Region, February 2016.

Table W-3: Groundwater Vapor Intrusion Human Health Risk Levels

Groundwater at soil boring B114 had the highest concentrations of VOCs with 1,1-DCE, 1,1-DCA and vinyl chloride at or exceeding the primary drinking water standard, and vinyl chloride exceeding the residential and commercial ESL. This boring was located within 10-15 feet of SV-40. B112 was located approximately 20 feet on the opposite side of SV-40. This data suggests that the groundwater impacts are likely limited, in extent, but this would have to be demonstrated by collecting data to the west of SV-40.

Soil Vapor Samples at SV46 and SV47

When the two new soil vapor probes were sampled difficulties with tight soils made it impossible to extract sufficient sample from all the probes from all the analyses desired. No sample at all could be extracted from SV46-5. The analytical summary is presented below. The findings for each analytical method are also discussed below as well as deviations from the planned work. All data is presented in µg/m³ except for fixed gasses such as oxygen, helium and Freon which is expressed as percent.

	SV46-10	SV46-10 dup	SV47-5	SV47-5 dup	SV47-10 dup	SV47-10	ESL (Res.)	ESL (Com/Ind)
TO-17 analytes								
TPHd	76,600	NA	2600	NA	<1500	NA	68,000	570,000
D1946-90 analytes %								
Oxygen	10	23	11	2.6	16	13		
Helium	0.052	<0.05	22	1.4	0.44	15		
Methane	0.0011	0.12	0.0017	0.011	0.00052	0.0032		
Carbon Dioxide	<0.004	<0.004	0.025	<0.0040	0.038	0.031		
TO-15 analytes								
TPHg	13,000	NA	<720	NA	<720	NA	300,000	2,500,000
Acetone	110	130	<3.2	NA	210	NA	1.6 x 10 ⁷	1.4 x 10 ⁸
Benzene	19	23	10	NA	<3.1	NA	48	
Bromomethane	9.6	<2.2	3.5	NA	<3.1	NA	2600	22,000
t-butyl alcohol	41	<2.2	<3.2	NA	<3.1	NA	NE	NE
Carbon tetrachloride	33	2.5	<3.2	NA	<3.1	NA	33	290
Carbon Disulfide	33	16	18	NA	2.3	NA	NE	NE
Cyclohexane	300	<2.2	<3.2	NA	<3.1	NA	NE	NE
Ethanol	100	<2.2	<3.2	NA	<3.1	NA	NE	NE
Ethyl acetate	2.4	<2.2	<3.2	NA	8.8	NA	NE	NE
Ethylbenzene	4.8	6.4	<3.2	NA	<3.1	NA	560	4900
Freon 12	3.1	<2.2	<3.2	NA	<3.1	NA	NE	NE
Heptane	440	<2.2	<3.2	NA	<3.1	NA	NE	NE
Hexane	260	<2.2	30	NA	24	NA	NE	NE
4 Isopropyl toluene	2.5	2.5	<3.2	NA	<3.1	NA	NE	NE
MIBK	3.9	<2.2	<3.2	NA	<3.1	NA	NE	NE
Toluene µg/l	32	31	7.6	NA	3.4	NA	160,000	1.3 x 10 ⁶
1,2,4-Trimethylbenzene	8.5	8.5	<3.2	NA	<3.1	NA	NE	NE
1,3,5-Trimethylbenzene	4.1	3.8	<3.2	NA	<3.1	NA	NE	NE
Xylenes	23	30	<3.2	NA	<3.1	NA	52,000	440,000

1,1-DCA = 1,1-Dichloroethane 1,1-DCE = 1,1-Dichloroethene Result in Bold if it Exceeds MCL
TCE = Trichloroethene Dichlorodifluoromethane = Freon 12 MIBK = Methyl isobutyl ketone
Res = residential Com/Ind = commercial/industrial NA = Not available
MCL – Maximum contaminant level (drinking water standard)
ESL – Environmental screening level, Regional Water Quality Control Board, San Francisco Bay Region, February 2016.

TO-15 VOCs and TPHg

TPHg was detected in only one soil vapor sample, SV46-10 at 13,000 µg/m³ which is below the residential ESL. It should be noted that there is no data from sample SV47-5.

Nineteen different VOCs were detected in soil vapor samples as summarized above. Most were detected in SV46-10. VOCs detected in SV47-5 should be considered qualitative because the high concentration of helium in the sample suggests that there was a leak during sampling. None of the VOCs detected exceeded the residential ESL.

TO-17 Polynuclear Aromatic Hydrocarbons and TPHd

TPHd was detected in SV46-5 and SV47-5 at 76,600 and 2,600 $\mu\text{g}/\text{m}^3$ respectively which are below the residential ESL. It should be noted that high helium in SV47-5 suggests that there was a leak during sampling and the result should be considered qualitative.

D1946-90 Fixed Gases

Carbon dioxide was detected at concentrations ranging from <0.004% to 0.038% in comparison to the 0.04% composition of the earth's atmosphere. Carbon dioxide concentrations at or below atmospheric concentrations suggest that there has not been any accumulation of carbon dioxide in the excavation backfills from biodegradation of petroleum hydrocarbons in adjacent soils.

Methane was detected at concentrations ranging from 0.00052% to 0.12% in comparison to the 0.000179% composition of the earth's atmosphere. Methane concentrations elevated above atmospheric conditions are indicative of the degradation of petroleum hydrocarbons in the subsurface. The concentrations measured in SV46 and SV47 however are substantially lower than the concentrations measures in soil vapor probes that were not installed in excavation backfill.

Oxygen was detected at concentrations ranging from 2.3% to 23% in comparison to the 20.946% composition of the earth's atmosphere. Oxygen concentrations approaching atmospheric concentrations may indicate atmospheric intrusion into soil vapor samples from the surface.

Helium was detected at concentrations ranging from 0.052 % to 22%. The Regional Water Quality Control Board and California Department of Toxic Substances Control allow for a maximum 5% leakage of ambient air into a sample container before the results are considered to be compromised. With 20% helium maintained within the sampling shroud, helium detected over 1% in a sample was considered compromised. On that basis samples collected at SV47-5, SV47-5 dup (to a much lesser extent) and SV47-10 are compromised. Fortunately, there was a duplicate sample collected at SV47-10, and the duplicate sample at SV47-5 contained helium at 1.5% so the data could be used on a qualitative basis.

CONCLUSIONS AND RECOMMENDATIONS

Based on the work described in this report addendum the following conclusions can be drawn:

- VOCs are not detectable above laboratory reporting limits in soil in the vicinity of SV40.
- VOCs occur in groundwater in the near vicinity of SV40 but only vinyl chloride exceeds the drinking water standard and commercial and residential ESLs. 1,1-DCA and 1,1-DCE

exceed the residential ESL but not the commercial/industrial ESL: Additional sampling to the west of SV40 should be completed to evaluate the magnitude of VOC impacts in the vicinity.

- Soil vapor sampling within excavation backfill suggests that by excavating impacted soil and backfilling with clean soil, concentrations of TPHg, TPHd and methane are reduced substantially. This statement appears to be true, despite the fact that some samples were compromised.

CKG has prepared a *Data Gaps Analysis and Work Plan to Address Data Gaps* dated June 13, 2017. In the work plan CKG recommends that all soil vapor probes including SV46 and SV47 are sampled again. CKG also recommends installing two soil borings to the west of SV40 and collecting groundwater samples to be analyzed for VOCs, to assess the extent of groundwater impacts associated with the oil water separator.

LIMITATIONS

CKG has performed the scope of work in a manner consistent with the standards of care and skill normally exercised by members of the profession practicing under similar conditions in the geographic vicinity and at the time the services will be performed. No warranty or guarantee expressed or implied is part of the services offered in this work plan.

CKG is pleased to prepare this work plan to complete a soil vapor investigation. If you need further information or would like more details regarding this work plan, please feel free to call me at (707) 967-8080.

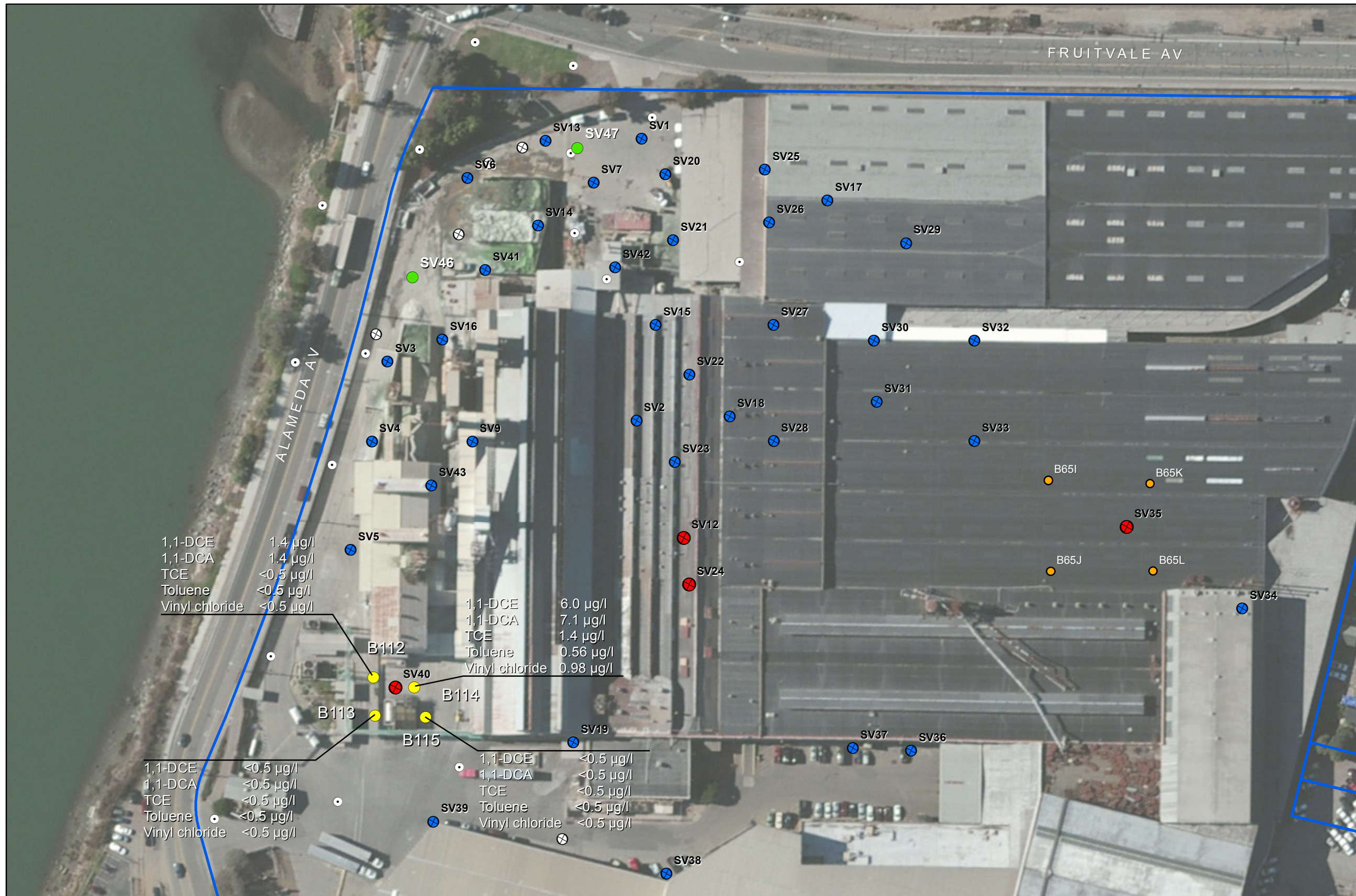
Sincerely,
CKG ENVIRONMENTAL, INC.



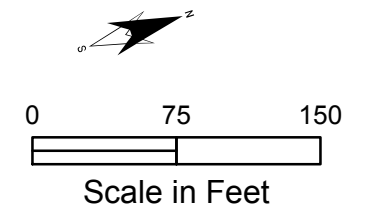
Christina J. Kennedy
Principal



Attachments Plate A2 VOCs in Groundwater
 Appendix A CKG Environmental Field Protocol
 Appendix B Soil Vapor Probe Installation and Sampling Procedures
 Appendix C Analytical Laboratory Reports



Drawn by PAD. 2017. Base layers are unmodified ESRI Digital Data Sets.



APPENDIX A
CKG ENVIRONMENTAL FIELD PROTOCOL

A-1 FIELD PREPARATION

Before performing work in the field, environmental staff review the scope of work, prepare a health and safety plan, coordinate the work to be done with their supervisor, assemble the necessary sample containers, and check, calibrate and clean equipment to be used in the field. When underground utilities may exist at a site where subsurface soil samples are being collected, USA Underground is contacted with the boring locations and the scheduled date of drilling, or a utility locating firm is employed to check the boring locations. Proper traffic control measures are carried out during roadwork.

A-2 SUBSURFACE SAMPLING

A-2.1 Geoprobe™ Sampling

Subsurface soil samples will be collected from soil borings. Soil borings will be advanced using a truck or track-mounted Geoprobe™ sampler. The Geoprobe™ sampler uses a direct push technology to advance a 1-½ inch sampler into the ground. The 4 foot long sampler is lined with clear acetate tubing to allow for continuous logging. A technician under the direction of a geologist registered with the State of California will log samples.

A-2.2 Equipment Decontamination

To reduce the potential for cross-contamination, samplers and associated equipment will be cleaned with a trisodium phosphate wash and rinsed with distilled water prior to collecting each soil sample.

A-2.3 Soil Sample Collection

The field technician will collect samples for quantitative analysis by cutting a six-inch long length of tubing at selected depths. The ends of the tube will be covered with Teflon and sealed with tight-fitting plastic caps.

After the samples are collected they will be individually labeled. The label will include CKG Environmental's name, job number, the date and time the sample was collected, the employee's name and a unique sample identifier.

A-2.4 Groundwater Sample Collection

The driller will install a Hydropunch™ sampler at the bottom of each boring so that a groundwater sample can be collected. The Hydropunch™ sampler consists of a 1-½ inch diameter PVC screen with a stainless-steel tip on the end. The sampler is pushed approximately two feet beyond the bottom of the hole and water is allowed to fill it.

Groundwater will be recovered using a small bailer and placed in laboratory prepared containers.

A-2.5 Sample Handling

After labeling, the sample is immediately stored in an iced cooler for transport to the analytical laboratory. A laboratory chain-of-custody form is attached to the cooler. The chain-of-custody form includes CKG Environmental's name, address and telephone number, the name of the individual who performed the sampling, the sample numbers, the date and time the samples were collected, the number of containers each sample occupies, and the analyses for which the samples are being submitted, if any. Each person who handles the samples, including all CKG employees and the receiving employee of the analytical laboratory when the samples are delivered, signs the chain-of-custody form.

A-2.7 Soil Boring Closure and Soil Cutting Disposal

Soil borings are closed immediately after the collection and logging of soil samples. Closure is accomplished by grouting the boring with a cement/bentonite slurry or as otherwise required. Investigation derived waste will be properly disposed by Owens-Brockway as part of their ongoing waste stream.

APPENDIX B SOIL VAPOR PROBE INSTALLATION AND SAMPLING PROCEDURES

Task B-1. Install Temporary Soil Vapor Probes

2. CKG will oversee a California C-57 licensed driller to install temporary soil vapor probes. The driller will install the temporary soil vapor probes in borings advanced by a combination of hand auger from 0 to 5 feet below grade and a direct push drill rig from 5 to 10 feet below grade. The following summarizes vapor probe installation rationale:
3. Each vapor probe will include a 1-inch stainless steel vapor screen placed at five feet below ground surface (bgs) as outlined above, and connected to ¼-inch Teflon tubing. The vapor probes will be constructed following standard methods in accordance with the California Department of Toxic Substances Control Advisory *Active Soil Gas Investigations* dated April 2012 and completed with temporary surface finishes. Typical nested soil vapor probe construction is illustrated on Plate 3 and typical single soil vapor probe construction is illustrated on Plate 4. Soil vapor probes will be allowed to equilibrate a minimum of 48 hours after they are installed prior to being sampled. CKG will additionally prepare California Department of Water Resources (DWR) forms required for the installation of these soil vapor probes.

Task B-2 Sample and Analyze Temporary Soil Vapor Probes

4. CKG will collect one round of soil vapor samples from each of the probe locations per the DTSC Advisory. A minimum of 48 hours will be allowed to elapse between soil vapor probe installation and soil vapor sample collection. Sampling of soil vapor probes will not be conducted during, or within five days after a significant rain event (0.5 inch or greater). The sampling equipment and methods are discussed in detail below.
 - **Sampling Equipment:** Stainless steel sampling manifolds will be connected to the vapor probe tubing using Teflon tubing and Swagelok® fittings. The stainless-steel manifold will consist of stainless steel tubing, a moisture filter, a flow controller, pressure gauges, valves, and Swagelok® fittings, and will be connected to two Summa® vacuum canisters (one for purging and one for sampling). Purging will be performed using a 6-liter Summa® vacuum canister and the samples will be collected in 1-liter Summa® vacuum canisters. The manifolds and Summa® canisters will be supplied by a state-certified laboratory. A different manifold will be used for each sample and manifolds will not be re-used at multiple sample locations. The flow controller will be pre-set by the laboratory to allow approximately 150 milliliters per minute (mL/min) of flow.
 - **Manifold Shut-In Test:** Before the manifold is connected to the soil vapor probe tubing, a Swagelok® cap will be fitted on the tubing connection side of the

manifold and a shut-in test will be performed by opening the purge canister. At the onset of the shut-in test the initial vacuum and time will be recorded on a field data sheet. The shut-in test will continue for at least 1 minute. If the vacuum pressure remains constant for the duration of the shut-in test, the test will be considered successful, the manifold will be connected to the soil vapor probe using Teflon tubing, and purging and sampling will commence. If the vacuum pressure changes, the shut-in test will be discontinued, the manifold fittings will be double checked and tightened, and the shut-in test will be repeated until the vacuum pressure remains constant. Extra manifolds and Summa canisters will be available in case one of the laboratory supplied manifolds is faulty.

- **Leak Detection:** Leak detection is important because leaks in the sampling system could cause the dilution of analytical samples with ambient air. The leak detection compound helium will be used to evaluate whether leaks are present in the sampling equipment. After a successful manifold shut-in test, the manifold will be connected to the soil vapor probe using Teflon tubing. With the exception of the Teflon tubing connections and soil vapor probe seals, all of the manifold connections will have been successfully shut-in tested prior to sampling; therefore, only the tubing connections and vapor probe seals will be possible sources of leakage. Helium will be introduced to the soil vapor probe sampling shroud throughout the duration of purging and sample collection and the concentration of helium in the shroud will be monitored and recorded on field data sheets. Helium will be included in the list of analyzed compounds from the samples and the results will be included in the laboratory analytical report.
- **Purge Volume:** A combined tubing and manifold length of 8 feet and 13 feet was assumed for the purge volume calculation of the approximately 5 feet bgs and 10 feet bgs soil vapor probes, respectively. The purge volume was calculated to be approximately 478 mL which is equivalent to a drop in Summa[®] canister vacuum pressure of approximately 2.39 in. Hg for the approximately 5 feet bgs vapor monitoring probes. The purge volume was calculated to be approximately 505 mL which is equivalent to a drop in Summa[®] canister vacuum pressure of approximately 2.52 in. Hg for the approximately 10 feet bgs vapor monitoring probes. The purge volume calculations are included as Attachment 1 of this Work Plan.
- **Purging:** Prior to sample collection, purging of the appropriate volume will be performed in order to collect representative samples. The purge volume will be monitored by change in vacuum pressure, not time. The purging start time, initial purge canister vacuum, ending time, and final vacuum will be recorded on the field data sheets.
- **Summa Canister Sample Collection:** Subsequent to purging, the purge canister valve will be closed and the 1-liter Summa sample canister valve opened to begin sample collection. The sampling will be monitored by change in vacuum pressure, not time. The sampling start time, initial sample canister vacuum, end time, and final vacuum will be recorded on the field data sheets. Sample canister valves will

be closed when the remaining vacuum is below 5 inches Hg. Sample canisters will not be allowed to reach 0-inch Hg, which would indicate that no vacuum remains in the canister.

- ***Sorbent Tube Sample Collection:*** Subsequent to Summa canister collection, a Tenax-TA sorbent tube will be placed in-line with a sample pump and a soil vapor sample will be collected in a dedicated sorbent tube from each of the soil vapor probes to be analyzed for TPHd and PAHs. Prior to sampling, a Gil-Air 5 air sampling pump will be set to a flow rate of approximately 180 milliliters per minute and calibrated using a Bios 510L flow sensor. The sorbent tube will be attached to the vapor probe tubing connector and the pump, and a volume of approximately 1-2 Liters of soil vapor will be extracted from the temporary soil vapor well through the sorbent tube. The sorbent tube serial number, the flow rate, before and after sampling, the time sampling began and ended will all be documented on field data sheets
- ***Quality Control:*** As discussed above, a manifold shut-in test will be performed and a leak detection compound (helium) will be used during sample collection and included in the analytical suite. Duplicate samples will be collected and analyzed for all the analytes requested of the analytical laboratory (see below). The DTSC Guidance states that a minimum of one duplicate per every 20 samples should be collected. On this basis CKG will collect 5 duplicate samples.
- ***Sample Handling:*** Upon collection, each sample will be labeled with the sample identification, date and time of collection, sampler's initials, and analytical method requested. This information will also be recorded on a chain-of-custody supplied by the laboratory. Samples will be delivered to a state-certified analytical laboratory either the same day or no later than the day following sampling. Samples will be protected from exposure to direct sunlight or significant changes in temperature during storage and transportation to the laboratory.

The samples will be transported under chain-of-custody documentation to a California-certified analytical lab

APPENDIX C



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1705340

Report Created for: CKG Environmental

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

Project Contact: Christina Kennedy

Project P.O.:

Project Name: OB Glass Oakland; PCB Basement

Project Received: 05/08/2017

Analytical Report reviewed & approved for release on 05/15/2017 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: OB Glass Oakland; PCB Basement
WorkOrder: 1705340

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
ERS	External reference sample. Second source calibration verification.
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)

Analytical Qualifiers

b1 aqueous sample that contains greater than ~1 vol. % sediment



Glossary of Terms & Qualifier Definitions

Client: CKG Environmental
Project: OB Glass Oakland; PCB Basement
WorkOrder: 1705340

Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD is out of acceptance criteria.



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-W	1705340-001A	Water	05/05/2017 11:10	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/13/2017 14:29
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/13/2017 14:29
Benzene	ND	0.50	1	05/13/2017 14:29
Bromobenzene	ND	0.50	1	05/13/2017 14:29
Bromochloromethane	ND	0.50	1	05/13/2017 14:29
Bromodichloromethane	ND	0.50	1	05/13/2017 14:29
Bromoform	ND	0.50	1	05/13/2017 14:29
Bromomethane	ND	0.50	1	05/13/2017 14:29
2-Butanone (MEK)	ND	2.0	1	05/13/2017 14:29
t-Butyl alcohol (TBA)	ND	2.0	1	05/13/2017 14:29
n-Butyl benzene	ND	0.50	1	05/13/2017 14:29
sec-Butyl benzene	ND	0.50	1	05/13/2017 14:29
tert-Butyl benzene	ND	0.50	1	05/13/2017 14:29
Carbon Disulfide	ND	0.50	1	05/13/2017 14:29
Carbon Tetrachloride	ND	0.50	1	05/13/2017 14:29
Chlorobenzene	ND	0.50	1	05/13/2017 14:29
Chloroethane	ND	0.50	1	05/13/2017 14:29
Chloroform	ND	0.50	1	05/13/2017 14:29
Chloromethane	ND	0.50	1	05/13/2017 14:29
2-Chlorotoluene	ND	0.50	1	05/13/2017 14:29
4-Chlorotoluene	ND	0.50	1	05/13/2017 14:29
Dibromochloromethane	ND	0.50	1	05/13/2017 14:29
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/13/2017 14:29
1,2-Dibromoethane (EDB)	ND	0.50	1	05/13/2017 14:29
Dibromomethane	ND	0.50	1	05/13/2017 14:29
1,2-Dichlorobenzene	ND	0.50	1	05/13/2017 14:29
1,3-Dichlorobenzene	ND	0.50	1	05/13/2017 14:29
1,4-Dichlorobenzene	ND	0.50	1	05/13/2017 14:29
Dichlorodifluoromethane	ND	0.50	1	05/13/2017 14:29
1,1-Dichloroethane	ND	0.50	1	05/13/2017 14:29
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/13/2017 14:29
1,1-Dichloroethene	ND	0.50	1	05/13/2017 14:29
cis-1,2-Dichloroethene	ND	0.50	1	05/13/2017 14:29
trans-1,2-Dichloroethene	ND	0.50	1	05/13/2017 14:29
1,2-Dichloropropane	ND	0.50	1	05/13/2017 14:29
1,3-Dichloropropane	ND	0.50	1	05/13/2017 14:29
2,2-Dichloropropane	ND	0.50	1	05/13/2017 14:29

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-W	1705340-001A	Water	05/05/2017 11:10	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/13/2017 14:29
cis-1,3-Dichloropropene	ND	0.50	1	05/13/2017 14:29
trans-1,3-Dichloropropene	ND	0.50	1	05/13/2017 14:29
Diisopropyl ether (DIPE)	ND	0.50	1	05/13/2017 14:29
Ethylbenzene	ND	0.50	1	05/13/2017 14:29
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/13/2017 14:29
Freon 113	ND	0.50	1	05/13/2017 14:29
Hexachlorobutadiene	ND	0.50	1	05/13/2017 14:29
Hexachloroethane	ND	0.50	1	05/13/2017 14:29
2-Hexanone	ND	0.50	1	05/13/2017 14:29
Isopropylbenzene	ND	0.50	1	05/13/2017 14:29
4-Isopropyl toluene	ND	0.50	1	05/13/2017 14:29
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/13/2017 14:29
Methylene chloride	ND	0.50	1	05/13/2017 14:29
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/13/2017 14:29
Naphthalene	ND	0.50	1	05/13/2017 14:29
n-Propyl benzene	ND	0.50	1	05/13/2017 14:29
Styrene	ND	0.50	1	05/13/2017 14:29
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/13/2017 14:29
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/13/2017 14:29
Tetrachloroethene	ND	0.50	1	05/13/2017 14:29
Toluene	ND	0.50	1	05/13/2017 14:29
1,2,3-Trichlorobenzene	ND	0.50	1	05/13/2017 14:29
1,2,4-Trichlorobenzene	ND	0.50	1	05/13/2017 14:29
1,1,1-Trichloroethane	ND	0.50	1	05/13/2017 14:29
1,1,2-Trichloroethane	ND	0.50	1	05/13/2017 14:29
Trichloroethene	ND	0.50	1	05/13/2017 14:29
Trichlorofluoromethane	ND	0.50	1	05/13/2017 14:29
1,2,3-Trichloropropane	ND	0.50	1	05/13/2017 14:29
1,2,4-Trimethylbenzene	ND	0.50	1	05/13/2017 14:29
1,3,5-Trimethylbenzene	ND	0.50	1	05/13/2017 14:29
Vinyl Chloride	ND	0.50	1	05/13/2017 14:29
Xylenes, Total	ND	0.50	1	05/13/2017 14:29

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-W	1705340-001A	Water	05/05/2017 11:10	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	126	70-130		05/13/2017 14:29
Toluene-d8	108	70-130		05/13/2017 14:29
4-BFB	111	70-130		05/13/2017 14:29

Analyst(s): HK

Analytical Comments: b1



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-W	1705340-002A	Water	05/05/2017 12:00	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/13/2017 15:07
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/13/2017 15:07
Benzene	ND	0.50	1	05/13/2017 15:07
Bromobenzene	ND	0.50	1	05/13/2017 15:07
Bromochloromethane	ND	0.50	1	05/13/2017 15:07
Bromodichloromethane	ND	0.50	1	05/13/2017 15:07
Bromoform	ND	0.50	1	05/13/2017 15:07
Bromomethane	ND	0.50	1	05/13/2017 15:07
2-Butanone (MEK)	ND	2.0	1	05/13/2017 15:07
t-Butyl alcohol (TBA)	ND	2.0	1	05/13/2017 15:07
n-Butyl benzene	ND	0.50	1	05/13/2017 15:07
sec-Butyl benzene	ND	0.50	1	05/13/2017 15:07
tert-Butyl benzene	ND	0.50	1	05/13/2017 15:07
Carbon Disulfide	ND	0.50	1	05/13/2017 15:07
Carbon Tetrachloride	ND	0.50	1	05/13/2017 15:07
Chlorobenzene	ND	0.50	1	05/13/2017 15:07
Chloroethane	ND	0.50	1	05/13/2017 15:07
Chloroform	ND	0.50	1	05/13/2017 15:07
Chloromethane	ND	0.50	1	05/13/2017 15:07
2-Chlorotoluene	ND	0.50	1	05/13/2017 15:07
4-Chlorotoluene	ND	0.50	1	05/13/2017 15:07
Dibromochloromethane	ND	0.50	1	05/13/2017 15:07
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/13/2017 15:07
1,2-Dibromoethane (EDB)	ND	0.50	1	05/13/2017 15:07
Dibromomethane	ND	0.50	1	05/13/2017 15:07
1,2-Dichlorobenzene	ND	0.50	1	05/13/2017 15:07
1,3-Dichlorobenzene	ND	0.50	1	05/13/2017 15:07
1,4-Dichlorobenzene	ND	0.50	1	05/13/2017 15:07
Dichlorodifluoromethane	ND	0.50	1	05/13/2017 15:07
1,1-Dichloroethane	ND	0.50	1	05/13/2017 15:07
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/13/2017 15:07
1,1-Dichloroethene	ND	0.50	1	05/13/2017 15:07
cis-1,2-Dichloroethene	ND	0.50	1	05/13/2017 15:07
trans-1,2-Dichloroethene	ND	0.50	1	05/13/2017 15:07
1,2-Dichloropropane	ND	0.50	1	05/13/2017 15:07
1,3-Dichloropropane	ND	0.50	1	05/13/2017 15:07
2,2-Dichloropropane	ND	0.50	1	05/13/2017 15:07

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-W	1705340-002A	Water	05/05/2017 12:00	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/13/2017 15:07
cis-1,3-Dichloropropene	ND	0.50	1	05/13/2017 15:07
trans-1,3-Dichloropropene	ND	0.50	1	05/13/2017 15:07
Diisopropyl ether (DIPE)	ND	0.50	1	05/13/2017 15:07
Ethylbenzene	ND	0.50	1	05/13/2017 15:07
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/13/2017 15:07
Freon 113	ND	0.50	1	05/13/2017 15:07
Hexachlorobutadiene	ND	0.50	1	05/13/2017 15:07
Hexachloroethane	ND	0.50	1	05/13/2017 15:07
2-Hexanone	ND	0.50	1	05/13/2017 15:07
Isopropylbenzene	ND	0.50	1	05/13/2017 15:07
4-Isopropyl toluene	ND	0.50	1	05/13/2017 15:07
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/13/2017 15:07
Methylene chloride	ND	0.50	1	05/13/2017 15:07
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/13/2017 15:07
Naphthalene	ND	0.50	1	05/13/2017 15:07
n-Propyl benzene	ND	0.50	1	05/13/2017 15:07
Styrene	ND	0.50	1	05/13/2017 15:07
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/13/2017 15:07
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/13/2017 15:07
Tetrachloroethene	ND	0.50	1	05/13/2017 15:07
Toluene	ND	0.50	1	05/13/2017 15:07
1,2,3-Trichlorobenzene	ND	0.50	1	05/13/2017 15:07
1,2,4-Trichlorobenzene	ND	0.50	1	05/13/2017 15:07
1,1,1-Trichloroethane	ND	0.50	1	05/13/2017 15:07
1,1,2-Trichloroethane	ND	0.50	1	05/13/2017 15:07
Trichloroethene	ND	0.50	1	05/13/2017 15:07
Trichlorofluoromethane	ND	0.50	1	05/13/2017 15:07
1,2,3-Trichloropropane	ND	0.50	1	05/13/2017 15:07
1,2,4-Trimethylbenzene	ND	0.50	1	05/13/2017 15:07
1,3,5-Trimethylbenzene	ND	0.50	1	05/13/2017 15:07
Vinyl Chloride	ND	0.50	1	05/13/2017 15:07
Xylenes, Total	ND	0.50	1	05/13/2017 15:07

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-W	1705340-002A	Water	05/05/2017 12:00	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	126	70-130		05/13/2017 15:07
Toluene-d8	109	70-130		05/13/2017 15:07
4-BFB	108	70-130		05/13/2017 15:07

Analyst(s): HK

Analytical Comments: b1



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-W	1705340-003A	Water	05/05/2017 13:30	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/13/2017 15:46
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/13/2017 15:46
Benzene	ND	0.50	1	05/13/2017 15:46
Bromobenzene	ND	0.50	1	05/13/2017 15:46
Bromochloromethane	ND	0.50	1	05/13/2017 15:46
Bromodichloromethane	ND	0.50	1	05/13/2017 15:46
Bromoform	ND	0.50	1	05/13/2017 15:46
Bromomethane	ND	0.50	1	05/13/2017 15:46
2-Butanone (MEK)	ND	2.0	1	05/13/2017 15:46
t-Butyl alcohol (TBA)	ND	2.0	1	05/13/2017 15:46
n-Butyl benzene	ND	0.50	1	05/13/2017 15:46
sec-Butyl benzene	ND	0.50	1	05/13/2017 15:46
tert-Butyl benzene	ND	0.50	1	05/13/2017 15:46
Carbon Disulfide	ND	0.50	1	05/13/2017 15:46
Carbon Tetrachloride	ND	0.50	1	05/13/2017 15:46
Chlorobenzene	ND	0.50	1	05/13/2017 15:46
Chloroethane	ND	0.50	1	05/13/2017 15:46
Chloroform	ND	0.50	1	05/13/2017 15:46
Chloromethane	ND	0.50	1	05/13/2017 15:46
2-Chlorotoluene	ND	0.50	1	05/13/2017 15:46
4-Chlorotoluene	ND	0.50	1	05/13/2017 15:46
Dibromochloromethane	ND	0.50	1	05/13/2017 15:46
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/13/2017 15:46
1,2-Dibromoethane (EDB)	ND	0.50	1	05/13/2017 15:46
Dibromomethane	ND	0.50	1	05/13/2017 15:46
1,2-Dichlorobenzene	ND	0.50	1	05/13/2017 15:46
1,3-Dichlorobenzene	ND	0.50	1	05/13/2017 15:46
1,4-Dichlorobenzene	ND	0.50	1	05/13/2017 15:46
Dichlorodifluoromethane	ND	0.50	1	05/13/2017 15:46
1,1-Dichloroethane	7.1	0.50	1	05/13/2017 15:46
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/13/2017 15:46
1,1-Dichloroethene	6.0	0.50	1	05/13/2017 15:46
cis-1,2-Dichloroethene	ND	0.50	1	05/13/2017 15:46
trans-1,2-Dichloroethene	ND	0.50	1	05/13/2017 15:46
1,2-Dichloropropane	ND	0.50	1	05/13/2017 15:46
1,3-Dichloropropane	ND	0.50	1	05/13/2017 15:46
2,2-Dichloropropane	ND	0.50	1	05/13/2017 15:46

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-W	1705340-003A	Water	05/05/2017 13:30	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/13/2017 15:46
cis-1,3-Dichloropropene	ND	0.50	1	05/13/2017 15:46
trans-1,3-Dichloropropene	ND	0.50	1	05/13/2017 15:46
Diisopropyl ether (DIPE)	ND	0.50	1	05/13/2017 15:46
Ethylbenzene	ND	0.50	1	05/13/2017 15:46
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/13/2017 15:46
Freon 113	ND	0.50	1	05/13/2017 15:46
Hexachlorobutadiene	ND	0.50	1	05/13/2017 15:46
Hexachloroethane	ND	0.50	1	05/13/2017 15:46
2-Hexanone	ND	0.50	1	05/13/2017 15:46
Isopropylbenzene	ND	0.50	1	05/13/2017 15:46
4-Isopropyl toluene	ND	0.50	1	05/13/2017 15:46
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/13/2017 15:46
Methylene chloride	ND	0.50	1	05/13/2017 15:46
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/13/2017 15:46
Naphthalene	ND	0.50	1	05/13/2017 15:46
n-Propyl benzene	ND	0.50	1	05/13/2017 15:46
Styrene	ND	0.50	1	05/13/2017 15:46
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/13/2017 15:46
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/13/2017 15:46
Tetrachloroethene	ND	0.50	1	05/13/2017 15:46
Toluene	0.56	0.50	1	05/13/2017 15:46
1,2,3-Trichlorobenzene	ND	0.50	1	05/13/2017 15:46
1,2,4-Trichlorobenzene	ND	0.50	1	05/13/2017 15:46
1,1,1-Trichloroethane	ND	0.50	1	05/13/2017 15:46
1,1,2-Trichloroethane	ND	0.50	1	05/13/2017 15:46
Trichloroethene	1.4	0.50	1	05/13/2017 15:46
Trichlorofluoromethane	ND	0.50	1	05/13/2017 15:46
1,2,3-Trichloropropane	ND	0.50	1	05/13/2017 15:46
1,2,4-Trimethylbenzene	ND	0.50	1	05/13/2017 15:46
1,3,5-Trimethylbenzene	ND	0.50	1	05/13/2017 15:46
Vinyl Chloride	0.98	0.50	1	05/13/2017 15:46
Xylenes, Total	ND	0.50	1	05/13/2017 15:46

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-W	1705340-003A	Water	05/05/2017 13:30	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	127	70-130		05/13/2017 15:46
Toluene-d8	109	70-130		05/13/2017 15:46
4-BFB	105	70-130		05/13/2017 15:46

Analyst(s): HK

Analytical Comments: b1



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-W	1705340-004A	Water	05/05/2017 14:20	GC18	138902
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/13/2017 16:25
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/13/2017 16:25
Benzene	ND		0.50	1	05/13/2017 16:25
Bromobenzene	ND		0.50	1	05/13/2017 16:25
Bromochloromethane	ND		0.50	1	05/13/2017 16:25
Bromodichloromethane	ND		0.50	1	05/13/2017 16:25
Bromoform	ND		0.50	1	05/13/2017 16:25
Bromomethane	ND		0.50	1	05/13/2017 16:25
2-Butanone (MEK)	ND		2.0	1	05/13/2017 16:25
t-Butyl alcohol (TBA)	ND		2.0	1	05/13/2017 16:25
n-Butyl benzene	ND		0.50	1	05/13/2017 16:25
sec-Butyl benzene	ND		0.50	1	05/13/2017 16:25
tert-Butyl benzene	ND		0.50	1	05/13/2017 16:25
Carbon Disulfide	ND		0.50	1	05/13/2017 16:25
Carbon Tetrachloride	ND		0.50	1	05/13/2017 16:25
Chlorobenzene	ND		0.50	1	05/13/2017 16:25
Chloroethane	ND		0.50	1	05/13/2017 16:25
Chloroform	ND		0.50	1	05/13/2017 16:25
Chloromethane	ND		0.50	1	05/13/2017 16:25
2-Chlorotoluene	ND		0.50	1	05/13/2017 16:25
4-Chlorotoluene	ND		0.50	1	05/13/2017 16:25
Dibromochloromethane	ND		0.50	1	05/13/2017 16:25
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/13/2017 16:25
1,2-Dibromoethane (EDB)	ND		0.50	1	05/13/2017 16:25
Dibromomethane	ND		0.50	1	05/13/2017 16:25
1,2-Dichlorobenzene	ND		0.50	1	05/13/2017 16:25
1,3-Dichlorobenzene	ND		0.50	1	05/13/2017 16:25
1,4-Dichlorobenzene	ND		0.50	1	05/13/2017 16:25
Dichlorodifluoromethane	ND		0.50	1	05/13/2017 16:25
1,1-Dichloroethane	1.4		0.50	1	05/13/2017 16:25
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/13/2017 16:25
1,1-Dichloroethene	1.4		0.50	1	05/13/2017 16:25
cis-1,2-Dichloroethene	ND		0.50	1	05/13/2017 16:25
trans-1,2-Dichloroethene	ND		0.50	1	05/13/2017 16:25
1,2-Dichloropropane	ND		0.50	1	05/13/2017 16:25
1,3-Dichloropropane	ND		0.50	1	05/13/2017 16:25
2,2-Dichloropropane	ND		0.50	1	05/13/2017 16:25

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-W	1705340-004A	Water	05/05/2017 14:20	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/13/2017 16:25
cis-1,3-Dichloropropene	ND	0.50	1	05/13/2017 16:25
trans-1,3-Dichloropropene	ND	0.50	1	05/13/2017 16:25
Diisopropyl ether (DIPE)	ND	0.50	1	05/13/2017 16:25
Ethylbenzene	ND	0.50	1	05/13/2017 16:25
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/13/2017 16:25
Freon 113	ND	0.50	1	05/13/2017 16:25
Hexachlorobutadiene	ND	0.50	1	05/13/2017 16:25
Hexachloroethane	ND	0.50	1	05/13/2017 16:25
2-Hexanone	ND	0.50	1	05/13/2017 16:25
Isopropylbenzene	ND	0.50	1	05/13/2017 16:25
4-Isopropyl toluene	ND	0.50	1	05/13/2017 16:25
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/13/2017 16:25
Methylene chloride	ND	0.50	1	05/13/2017 16:25
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/13/2017 16:25
Naphthalene	ND	0.50	1	05/13/2017 16:25
n-Propyl benzene	ND	0.50	1	05/13/2017 16:25
Styrene	ND	0.50	1	05/13/2017 16:25
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/13/2017 16:25
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/13/2017 16:25
Tetrachloroethene	ND	0.50	1	05/13/2017 16:25
Toluene	ND	0.50	1	05/13/2017 16:25
1,2,3-Trichlorobenzene	ND	0.50	1	05/13/2017 16:25
1,2,4-Trichlorobenzene	ND	0.50	1	05/13/2017 16:25
1,1,1-Trichloroethane	ND	0.50	1	05/13/2017 16:25
1,1,2-Trichloroethane	ND	0.50	1	05/13/2017 16:25
Trichloroethene	ND	0.50	1	05/13/2017 16:25
Trichlorofluoromethane	ND	0.50	1	05/13/2017 16:25
1,2,3-Trichloropropane	ND	0.50	1	05/13/2017 16:25
1,2,4-Trimethylbenzene	ND	0.50	1	05/13/2017 16:25
1,3,5-Trimethylbenzene	ND	0.50	1	05/13/2017 16:25
Vinyl Chloride	ND	0.50	1	05/13/2017 16:25
Xylenes, Total	ND	0.50	1	05/13/2017 16:25

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/13/17
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-W	1705340-004A	Water	05/05/2017 14:20	GC18	138902

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	128	70-130		05/13/2017 16:25
Toluene-d8	108	70-130		05/13/2017 16:25
4-BFB	106	70-130		05/13/2017 16:25

Analyst(s): HK

Analytical Comments: b1



Quality Control Report

Client: CKG Environmental
Date Prepared: 5/13/17
Date Analyzed: 5/13/17
Instrument: GC18
Matrix: Water
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
BatchID: 138902
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138902

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)



Quality Control Report

Client: CKG Environmental
Date Prepared: 5/13/17
Date Analyzed: 5/13/17
Instrument: GC18
Matrix: Water
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
BatchID: 138902
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138902

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	30.68		25	123	70-130
Toluene-d8	27.62		25	110	70-130
4-BFB	2.742		2.5	110	70-130

(Cont.)



Quality Control Report

Client: CKG Environmental
Date Prepared: 5/13/17
Date Analyzed: 5/13/17
Instrument: GC18
Matrix: Water
Project: OB Glass Oakland; PCB Basement

WorkOrder: 1705340
BatchID: 138902
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138902

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.12	9.54	10	91	95	54-140	4.51	20
Benzene	9.95	10.1	10	100	101	47-158	1.65	20
t-Butyl alcohol (TBA)	26.6	27.9	40	67	70	42-140	4.58	20
Chlorobenzene	10.2	10.2	10	102	102	43-157	0	20
1,2-Dibromoethane (EDB)	9.91	10.3	10	99	103	44-155	3.46	20
1,2-Dichloroethane (1,2-DCA)	10.8	11.1	10	108	111	66-125	2.77	20
1,1-Dichloroethene	8.39	8.13	10	84	81	47-149	3.16	20
Diisopropyl ether (DIPE)	9.48	7.31	10	95	73	57-136	25.9,F2	20
Ethyl tert-butyl ether (ETBE)	9.60	8.27	10	96	83	55-137	14.9	20
Methyl-t-butyl ether (MTBE)	9.40	7.85	10	94	79	53-139	17.9	20
Toluene	9.89	10.1	10	99	101	52-137	2.44	20
Trichloroethene	10.6	10.7	10	106	107	43-157	1.23	20
Surrogate Recovery								
Dibromofluoromethane	29.5	27.0	25	118	108	70-130	8.96	20
Toluene-d8	27.5	27.8	25	110	111	70-130	1.01	20
4-BFB	2.66	2.62	2.5	107	105	70-130	1.85	20



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1705340

ClientCode: CKGS

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 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: OB Glass Oakland; PCB Basement

Bill to:

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

Requested TAT: 5 days;

Date Received: 05/08/2017
Date Logged: 05/09/2017

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1705340-001	B113-W	Water	5/5/2017 11:10	<input type="checkbox"/>	A												
1705340-002	B115-W	Water	5/5/2017 12:00	<input type="checkbox"/>	A												
1705340-003	B114-W	Water	5/5/2017 13:30	<input type="checkbox"/>	A												
1705340-004	B112-W	Water	5/5/2017 14:20	<input type="checkbox"/>	A												

Test Legend:

1	8260B_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Jena Alfaro

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: OB Glass Oakland; PCB Basement

Work Order: 1705340

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 5/9/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1705340-001A	B113-W	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/5/2017 11:10	5 days	25%+	<input type="checkbox"/>	
1705340-002A	B115-W	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/5/2017 12:00	5 days	45%+	<input type="checkbox"/>	
1705340-003A	B114-W	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/5/2017 13:30	5 days	5%+	<input type="checkbox"/>	
1705340-004A	B112-W	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/5/2017 14:20	5 days	35%+	<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.

1705340

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
 PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com Email: main@mccampbell.com
 Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME
 RUSH 24 HR 48 HR 72 HR 5 DAY
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Chris Kennedy Bill To: CKG Environmental
 Company: CKG Environmental, Inc.
 P.O. Box 246
 St. Helena, CA 94574 E-Mail: ckennedy@geologist.com
 Tele: (707) 967-8080 Fax: (707) 967-8080
 Project #: OB Glass Oakland Project Name: PCB Basement
 Project Location: 3600 Alameda Avenue, Oakland, CA
 Sampler Signature: *[Signature]*

Analysis Request											Other	Comments					
BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Total PCBs by 8082A, Soxhlet Extraction in dry weight with GPC cleanup if needed	Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
25% B113-W		5.5.07	1110	2	40% COF	✓											
45% B115-W			1200			✓											
5% B114-W			1330			✓											
25% B112-W			1420			✓											

Relinquished By: *[Signature]* Date: 5/8/07 Time: 0845 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: 5/8/07 Time: 1540 Received By: *[Signature]*
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/4° 416° COMMENTS:
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____
 PRESERVATION VOAS | O&G | METALS | OTHER
 pH < 2



Sample Receipt Checklist

Client Name: **CKG Environmental**
 Project Name: **OB Glass Oakland; PCB Basement**
 WorkOrder No: **1705340** Matrix: Water
 Carrier: Bernie Cummins (MAI Courier)

Date and Time Received: **5/8/2017 15:40**
 Date Logged: **5/9/2017**
 Received by: Jena Alfaro
 Logged by: Jena Alfaro

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No NA
 Sample/Temp Blank temperature Temp: 4.6°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:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1705341

Report Created for: CKG Environmental

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

Project Contact: Christina Kennedy

Project P.O.:

Project Name: OB Glass Oakland; Oil/Water Separator

Project Received: 05/08/2017

Analytical Report reviewed & approved for release on 05/16/2017 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: OB Glass Oakland; Oil/Water Separator
WorkOrder: 1705341

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
ERS	External reference sample. Second source calibration verification.
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)

Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD is out of acceptance criteria.



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-5	1705341-001A	Soil	05/05/2017 10:50	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 10:07
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 10:07
Benzene	ND	0.0050	1	05/15/2017 10:07
Bromobenzene	ND	0.0050	1	05/15/2017 10:07
Bromochloromethane	ND	0.0050	1	05/15/2017 10:07
Bromodichloromethane	ND	0.0050	1	05/15/2017 10:07
Bromoform	ND	0.0050	1	05/15/2017 10:07
Bromomethane	ND	0.0050	1	05/15/2017 10:07
2-Butanone (MEK)	ND	0.020	1	05/15/2017 10:07
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 10:07
n-Butyl benzene	ND	0.0050	1	05/15/2017 10:07
sec-Butyl benzene	ND	0.0050	1	05/15/2017 10:07
tert-Butyl benzene	ND	0.0050	1	05/15/2017 10:07
Carbon Disulfide	ND	0.0050	1	05/15/2017 10:07
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 10:07
Chlorobenzene	ND	0.0050	1	05/15/2017 10:07
Chloroethane	ND	0.0050	1	05/15/2017 10:07
Chloroform	ND	0.0050	1	05/15/2017 10:07
Chloromethane	ND	0.0050	1	05/15/2017 10:07
2-Chlorotoluene	ND	0.0050	1	05/15/2017 10:07
4-Chlorotoluene	ND	0.0050	1	05/15/2017 10:07
Dibromochloromethane	ND	0.0050	1	05/15/2017 10:07
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 10:07
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 10:07
Dibromomethane	ND	0.0050	1	05/15/2017 10:07
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:07
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:07
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:07
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 10:07
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 10:07
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 10:07
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 10:07
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 10:07
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 10:07
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 10:07
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 10:07
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 10:07

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-5	1705341-001A	Soil	05/05/2017 10:50	GC28	138484
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 10:07	
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 10:07	
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 10:07	
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 10:07	
Ethylbenzene	ND	0.0050	1	05/15/2017 10:07	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 10:07	
Freon 113	ND	0.0050	1	05/15/2017 10:07	
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 10:07	
Hexachloroethane	ND	0.0050	1	05/15/2017 10:07	
2-Hexanone	ND	0.0050	1	05/15/2017 10:07	
Isopropylbenzene	ND	0.0050	1	05/15/2017 10:07	
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 10:07	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 10:07	
Methylene chloride	ND	0.0050	1	05/15/2017 10:07	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 10:07	
Naphthalene	ND	0.0050	1	05/15/2017 10:07	
n-Propyl benzene	ND	0.0050	1	05/15/2017 10:07	
Styrene	ND	0.0050	1	05/15/2017 10:07	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 10:07	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 10:07	
Tetrachloroethene	ND	0.0050	1	05/15/2017 10:07	
Toluene	ND	0.0050	1	05/15/2017 10:07	
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 10:07	
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 10:07	
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 10:07	
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 10:07	
Trichloroethene	ND	0.0050	1	05/15/2017 10:07	
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 10:07	
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 10:07	
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 10:07	
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 10:07	
Vinyl Chloride	ND	0.0050	1	05/15/2017 10:07	
Xylenes, Total	ND	0.0050	1	05/15/2017 10:07	

(Cont.)



Analytical Report

Client: CKG Environmental

WorkOrder: 1705341

Date Received: 5/8/17 15:40

Extraction Method: SW5030B

Date Prepared: 5/9/17

Analytical Method: SW8260B

Project: OB Glass Oakland; Oil/Water Separator

Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-5	1705341-001A	Soil	05/05/2017 10:50	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	113		70-130	05/15/2017 10:07
Toluene-d8	118		70-130	05/15/2017 10:07
4-BFB	102		70-130	05/15/2017 10:07
Benzene-d6	97		60-140	05/15/2017 10:07
Ethylbenzene-d10	103		60-140	05/15/2017 10:07
1,2-DCB-d4	81		60-140	05/15/2017 10:07

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-10	1705341-002A	Soil	05/05/2017 11:00	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 10:45
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 10:45
Benzene	ND	0.0050	1	05/15/2017 10:45
Bromobenzene	ND	0.0050	1	05/15/2017 10:45
Bromochloromethane	ND	0.0050	1	05/15/2017 10:45
Bromodichloromethane	ND	0.0050	1	05/15/2017 10:45
Bromoform	ND	0.0050	1	05/15/2017 10:45
Bromomethane	ND	0.0050	1	05/15/2017 10:45
2-Butanone (MEK)	ND	0.020	1	05/15/2017 10:45
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 10:45
n-Butyl benzene	ND	0.0050	1	05/15/2017 10:45
sec-Butyl benzene	ND	0.0050	1	05/15/2017 10:45
tert-Butyl benzene	ND	0.0050	1	05/15/2017 10:45
Carbon Disulfide	ND	0.0050	1	05/15/2017 10:45
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 10:45
Chlorobenzene	ND	0.0050	1	05/15/2017 10:45
Chloroethane	ND	0.0050	1	05/15/2017 10:45
Chloroform	ND	0.0050	1	05/15/2017 10:45
Chloromethane	ND	0.0050	1	05/15/2017 10:45
2-Chlorotoluene	ND	0.0050	1	05/15/2017 10:45
4-Chlorotoluene	ND	0.0050	1	05/15/2017 10:45
Dibromochloromethane	ND	0.0050	1	05/15/2017 10:45
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 10:45
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 10:45
Dibromomethane	ND	0.0050	1	05/15/2017 10:45
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:45
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:45
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 10:45
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 10:45
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 10:45
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 10:45
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 10:45
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 10:45
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 10:45
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 10:45
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 10:45
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 10:45

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-10	1705341-002A	Soil	05/05/2017 11:00	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 10:45
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 10:45
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 10:45
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 10:45
Ethylbenzene	ND	0.0050	1	05/15/2017 10:45
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 10:45
Freon 113	ND	0.0050	1	05/15/2017 10:45
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 10:45
Hexachloroethane	ND	0.0050	1	05/15/2017 10:45
2-Hexanone	ND	0.0050	1	05/15/2017 10:45
Isopropylbenzene	ND	0.0050	1	05/15/2017 10:45
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 10:45
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 10:45
Methylene chloride	ND	0.0050	1	05/15/2017 10:45
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 10:45
Naphthalene	ND	0.0050	1	05/15/2017 10:45
n-Propyl benzene	ND	0.0050	1	05/15/2017 10:45
Styrene	ND	0.0050	1	05/15/2017 10:45
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 10:45
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 10:45
Tetrachloroethene	ND	0.0050	1	05/15/2017 10:45
Toluene	ND	0.0050	1	05/15/2017 10:45
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 10:45
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 10:45
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 10:45
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 10:45
Trichloroethene	ND	0.0050	1	05/15/2017 10:45
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 10:45
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 10:45
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 10:45
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 10:45
Vinyl Chloride	ND	0.0050	1	05/15/2017 10:45
Xylenes, Total	ND	0.0050	1	05/15/2017 10:45

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Analytical Report

Client: CKG Environmental

WorkOrder: 1705341

Date Received: 5/8/17 15:40

Extraction Method: SW5030B

Date Prepared: 5/9/17

Analytical Method: SW8260B

Project: OB Glass Oakland; Oil/Water Separator

Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-10	1705341-002A	Soil	05/05/2017 11:00	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	111	70-130		05/15/2017 10:45
Toluene-d8	117	70-130		05/15/2017 10:45
4-BFB	103	70-130		05/15/2017 10:45
Benzene-d6	66	60-140		05/15/2017 10:45
Ethylbenzene-d10	89	60-140		05/15/2017 10:45
1,2-DCB-d4	81	60-140		05/15/2017 10:45

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-13	1705341-003A	Soil	05/05/2017 11:05	GC28	138484
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	05/15/2017 11:24	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 11:24	
Benzene	ND	0.0050	1	05/15/2017 11:24	
Bromobenzene	ND	0.0050	1	05/15/2017 11:24	
Bromochloromethane	ND	0.0050	1	05/15/2017 11:24	
Bromodichloromethane	ND	0.0050	1	05/15/2017 11:24	
Bromoform	ND	0.0050	1	05/15/2017 11:24	
Bromomethane	ND	0.0050	1	05/15/2017 11:24	
2-Butanone (MEK)	ND	0.020	1	05/15/2017 11:24	
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 11:24	
n-Butyl benzene	ND	0.0050	1	05/15/2017 11:24	
sec-Butyl benzene	ND	0.0050	1	05/15/2017 11:24	
tert-Butyl benzene	ND	0.0050	1	05/15/2017 11:24	
Carbon Disulfide	ND	0.0050	1	05/15/2017 11:24	
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 11:24	
Chlorobenzene	ND	0.0050	1	05/15/2017 11:24	
Chloroethane	ND	0.0050	1	05/15/2017 11:24	
Chloroform	ND	0.0050	1	05/15/2017 11:24	
Chloromethane	ND	0.0050	1	05/15/2017 11:24	
2-Chlorotoluene	ND	0.0050	1	05/15/2017 11:24	
4-Chlorotoluene	ND	0.0050	1	05/15/2017 11:24	
Dibromochloromethane	ND	0.0050	1	05/15/2017 11:24	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 11:24	
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 11:24	
Dibromomethane	ND	0.0050	1	05/15/2017 11:24	
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 11:24	
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 11:24	
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 11:24	
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 11:24	
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 11:24	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 11:24	
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 11:24	
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 11:24	
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 11:24	
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 11:24	
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 11:24	
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 11:24	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-13	1705341-003A	Soil	05/05/2017 11:05	GC28	138484
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 11:24	
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 11:24	
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 11:24	
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 11:24	
Ethylbenzene	ND	0.0050	1	05/15/2017 11:24	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 11:24	
Freon 113	ND	0.0050	1	05/15/2017 11:24	
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 11:24	
Hexachloroethane	ND	0.0050	1	05/15/2017 11:24	
2-Hexanone	ND	0.0050	1	05/15/2017 11:24	
Isopropylbenzene	ND	0.0050	1	05/15/2017 11:24	
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 11:24	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 11:24	
Methylene chloride	ND	0.0050	1	05/15/2017 11:24	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 11:24	
Naphthalene	ND	0.0050	1	05/15/2017 11:24	
n-Propyl benzene	ND	0.0050	1	05/15/2017 11:24	
Styrene	ND	0.0050	1	05/15/2017 11:24	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 11:24	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 11:24	
Tetrachloroethene	ND	0.0050	1	05/15/2017 11:24	
Toluene	ND	0.0050	1	05/15/2017 11:24	
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 11:24	
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 11:24	
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 11:24	
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 11:24	
Trichloroethene	ND	0.0050	1	05/15/2017 11:24	
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 11:24	
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 11:24	
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 11:24	
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 11:24	
Vinyl Chloride	ND	0.0050	1	05/15/2017 11:24	
Xylenes, Total	ND	0.0050	1	05/15/2017 11:24	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B113-13	1705341-003A	Soil	05/05/2017 11:05	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	113		70-130	05/15/2017 11:24
Toluene-d8	117		70-130	05/15/2017 11:24
4-BFB	100		70-130	05/15/2017 11:24
Benzene-d6	95		60-140	05/15/2017 11:24
Ethylbenzene-d10	102		60-140	05/15/2017 11:24
1,2-DCB-d4	79		60-140	05/15/2017 11:24

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-5	1705341-004A	Soil	05/05/2017 11:45	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 12:02
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 12:02
Benzene	ND	0.0050	1	05/15/2017 12:02
Bromobenzene	ND	0.0050	1	05/15/2017 12:02
Bromochloromethane	ND	0.0050	1	05/15/2017 12:02
Bromodichloromethane	ND	0.0050	1	05/15/2017 12:02
Bromoform	ND	0.0050	1	05/15/2017 12:02
Bromomethane	ND	0.0050	1	05/15/2017 12:02
2-Butanone (MEK)	ND	0.020	1	05/15/2017 12:02
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 12:02
n-Butyl benzene	ND	0.0050	1	05/15/2017 12:02
sec-Butyl benzene	ND	0.0050	1	05/15/2017 12:02
tert-Butyl benzene	ND	0.0050	1	05/15/2017 12:02
Carbon Disulfide	ND	0.0050	1	05/15/2017 12:02
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 12:02
Chlorobenzene	ND	0.0050	1	05/15/2017 12:02
Chloroethane	ND	0.0050	1	05/15/2017 12:02
Chloroform	ND	0.0050	1	05/15/2017 12:02
Chloromethane	ND	0.0050	1	05/15/2017 12:02
2-Chlorotoluene	ND	0.0050	1	05/15/2017 12:02
4-Chlorotoluene	ND	0.0050	1	05/15/2017 12:02
Dibromochloromethane	ND	0.0050	1	05/15/2017 12:02
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 12:02
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 12:02
Dibromomethane	ND	0.0050	1	05/15/2017 12:02
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 12:02
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 12:02
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 12:02
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 12:02
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 12:02
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 12:02
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 12:02
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 12:02
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 12:02
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 12:02
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 12:02
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 12:02

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-5	1705341-004A	Soil	05/05/2017 11:45	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 12:02
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 12:02
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 12:02
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 12:02
Ethylbenzene	ND	0.0050	1	05/15/2017 12:02
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 12:02
Freon 113	ND	0.0050	1	05/15/2017 12:02
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 12:02
Hexachloroethane	ND	0.0050	1	05/15/2017 12:02
2-Hexanone	ND	0.0050	1	05/15/2017 12:02
Isopropylbenzene	ND	0.0050	1	05/15/2017 12:02
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 12:02
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 12:02
Methylene chloride	ND	0.0050	1	05/15/2017 12:02
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 12:02
Naphthalene	ND	0.0050	1	05/15/2017 12:02
n-Propyl benzene	ND	0.0050	1	05/15/2017 12:02
Styrene	ND	0.0050	1	05/15/2017 12:02
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 12:02
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 12:02
Tetrachloroethene	ND	0.0050	1	05/15/2017 12:02
Toluene	ND	0.0050	1	05/15/2017 12:02
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 12:02
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 12:02
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 12:02
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 12:02
Trichloroethene	ND	0.0050	1	05/15/2017 12:02
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 12:02
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 12:02
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 12:02
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 12:02
Vinyl Chloride	ND	0.0050	1	05/15/2017 12:02
Xylenes, Total	ND	0.0050	1	05/15/2017 12:02

(Cont.)



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-5	1705341-004A	Soil	05/05/2017 11:45	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	115	70-130		05/15/2017 12:02
Toluene-d8	115	70-130		05/15/2017 12:02
4-BFB	98	70-130		05/15/2017 12:02
Benzene-d6	81	60-140		05/15/2017 12:02
Ethylbenzene-d10	85	60-140		05/15/2017 12:02
1,2-DCB-d4	68	60-140		05/15/2017 12:02

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-10	1705341-005A	Soil	05/05/2017 11:50	GC28	138484
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	05/15/2017 13:58	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 13:58	
Benzene	ND	0.0050	1	05/15/2017 13:58	
Bromobenzene	ND	0.0050	1	05/15/2017 13:58	
Bromochloromethane	ND	0.0050	1	05/15/2017 13:58	
Bromodichloromethane	ND	0.0050	1	05/15/2017 13:58	
Bromoform	ND	0.0050	1	05/15/2017 13:58	
Bromomethane	ND	0.0050	1	05/15/2017 13:58	
2-Butanone (MEK)	ND	0.020	1	05/15/2017 13:58	
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 13:58	
n-Butyl benzene	ND	0.0050	1	05/15/2017 13:58	
sec-Butyl benzene	ND	0.0050	1	05/15/2017 13:58	
tert-Butyl benzene	ND	0.0050	1	05/15/2017 13:58	
Carbon Disulfide	ND	0.0050	1	05/15/2017 13:58	
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 13:58	
Chlorobenzene	ND	0.0050	1	05/15/2017 13:58	
Chloroethane	ND	0.0050	1	05/15/2017 13:58	
Chloroform	ND	0.0050	1	05/15/2017 13:58	
Chloromethane	ND	0.0050	1	05/15/2017 13:58	
2-Chlorotoluene	ND	0.0050	1	05/15/2017 13:58	
4-Chlorotoluene	ND	0.0050	1	05/15/2017 13:58	
Dibromochloromethane	ND	0.0050	1	05/15/2017 13:58	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 13:58	
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 13:58	
Dibromomethane	ND	0.0050	1	05/15/2017 13:58	
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 13:58	
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 13:58	
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 13:58	
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 13:58	
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 13:58	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 13:58	
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 13:58	
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 13:58	
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 13:58	
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 13:58	
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 13:58	
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 13:58	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-10	1705341-005A	Soil	05/05/2017 11:50	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 13:58
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 13:58
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 13:58
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 13:58
Ethylbenzene	ND	0.0050	1	05/15/2017 13:58
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 13:58
Freon 113	ND	0.0050	1	05/15/2017 13:58
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 13:58
Hexachloroethane	ND	0.0050	1	05/15/2017 13:58
2-Hexanone	ND	0.0050	1	05/15/2017 13:58
Isopropylbenzene	ND	0.0050	1	05/15/2017 13:58
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 13:58
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 13:58
Methylene chloride	ND	0.0050	1	05/15/2017 13:58
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 13:58
Naphthalene	ND	0.0050	1	05/15/2017 13:58
n-Propyl benzene	ND	0.0050	1	05/15/2017 13:58
Styrene	ND	0.0050	1	05/15/2017 13:58
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 13:58
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 13:58
Tetrachloroethene	ND	0.0050	1	05/15/2017 13:58
Toluene	ND	0.0050	1	05/15/2017 13:58
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 13:58
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 13:58
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 13:58
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 13:58
Trichloroethene	ND	0.0050	1	05/15/2017 13:58
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 13:58
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 13:58
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 13:58
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 13:58
Vinyl Chloride	ND	0.0050	1	05/15/2017 13:58
Xylenes, Total	ND	0.0050	1	05/15/2017 13:58

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-10	1705341-005A	Soil	05/05/2017 11:50	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	116		70-130	05/15/2017 13:58
Toluene-d8	119		70-130	05/15/2017 13:58
4-BFB	111		70-130	05/15/2017 13:58
Benzene-d6	101		60-140	05/15/2017 13:58
Ethylbenzene-d10	110		60-140	05/15/2017 13:58
1,2-DCB-d4	85		60-140	05/15/2017 13:58

Analyst(s): AK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-12.5	1705341-006A	Soil	05/05/2017 11:55	GC28	138484
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	05/15/2017 14:38	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 14:38	
Benzene	ND	0.0050	1	05/15/2017 14:38	
Bromobenzene	ND	0.0050	1	05/15/2017 14:38	
Bromochloromethane	ND	0.0050	1	05/15/2017 14:38	
Bromodichloromethane	ND	0.0050	1	05/15/2017 14:38	
Bromoform	ND	0.0050	1	05/15/2017 14:38	
Bromomethane	ND	0.0050	1	05/15/2017 14:38	
2-Butanone (MEK)	ND	0.020	1	05/15/2017 14:38	
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 14:38	
n-Butyl benzene	ND	0.0050	1	05/15/2017 14:38	
sec-Butyl benzene	ND	0.0050	1	05/15/2017 14:38	
tert-Butyl benzene	ND	0.0050	1	05/15/2017 14:38	
Carbon Disulfide	ND	0.0050	1	05/15/2017 14:38	
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 14:38	
Chlorobenzene	ND	0.0050	1	05/15/2017 14:38	
Chloroethane	ND	0.0050	1	05/15/2017 14:38	
Chloroform	ND	0.0050	1	05/15/2017 14:38	
Chloromethane	ND	0.0050	1	05/15/2017 14:38	
2-Chlorotoluene	ND	0.0050	1	05/15/2017 14:38	
4-Chlorotoluene	ND	0.0050	1	05/15/2017 14:38	
Dibromochloromethane	ND	0.0050	1	05/15/2017 14:38	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 14:38	
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 14:38	
Dibromomethane	ND	0.0050	1	05/15/2017 14:38	
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:38	
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:38	
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:38	
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 14:38	
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 14:38	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 14:38	
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 14:38	
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 14:38	
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 14:38	
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 14:38	
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 14:38	
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 14:38	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-12.5	1705341-006A	Soil	05/05/2017 11:55	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 14:38
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 14:38
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 14:38
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 14:38
Ethylbenzene	ND	0.0050	1	05/15/2017 14:38
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 14:38
Freon 113	ND	0.0050	1	05/15/2017 14:38
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 14:38
Hexachloroethane	ND	0.0050	1	05/15/2017 14:38
2-Hexanone	ND	0.0050	1	05/15/2017 14:38
Isopropylbenzene	ND	0.0050	1	05/15/2017 14:38
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 14:38
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 14:38
Methylene chloride	ND	0.0050	1	05/15/2017 14:38
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 14:38
Naphthalene	ND	0.0050	1	05/15/2017 14:38
n-Propyl benzene	ND	0.0050	1	05/15/2017 14:38
Styrene	ND	0.0050	1	05/15/2017 14:38
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 14:38
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 14:38
Tetrachloroethene	ND	0.0050	1	05/15/2017 14:38
Toluene	ND	0.0050	1	05/15/2017 14:38
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 14:38
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 14:38
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 14:38
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 14:38
Trichloroethene	ND	0.0050	1	05/15/2017 14:38
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 14:38
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 14:38
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 14:38
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 14:38
Vinyl Chloride	ND	0.0050	1	05/15/2017 14:38
Xylenes, Total	ND	0.0050	1	05/15/2017 14:38

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B115-12.5	1705341-006A	Soil	05/05/2017 11:55	GC28	138484

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	115		70-130	05/15/2017 14:38
Toluene-d8	119		70-130	05/15/2017 14:38
4-BFB	109		70-130	05/15/2017 14:38
Benzene-d6	103		60-140	05/15/2017 14:38
Ethylbenzene-d10	111		60-140	05/15/2017 14:38
1,2-DCB-d4	84		60-140	05/15/2017 14:38

Analyst(s): AK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-5	1705341-007A	Soil	05/05/2017 13:05	GC38	138549
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	05/16/2017 13:50	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/16/2017 13:50	
Benzene	ND	0.0050	1	05/16/2017 13:50	
Bromobenzene	ND	0.0050	1	05/16/2017 13:50	
Bromochloromethane	ND	0.0050	1	05/16/2017 13:50	
Bromodichloromethane	ND	0.0050	1	05/16/2017 13:50	
Bromoform	ND	0.0050	1	05/16/2017 13:50	
Bromomethane	ND	0.0050	1	05/16/2017 13:50	
2-Butanone (MEK)	ND	0.020	1	05/16/2017 13:50	
t-Butyl alcohol (TBA)	ND	0.050	1	05/16/2017 13:50	
n-Butyl benzene	ND	0.0050	1	05/16/2017 13:50	
sec-Butyl benzene	ND	0.0050	1	05/16/2017 13:50	
tert-Butyl benzene	ND	0.0050	1	05/16/2017 13:50	
Carbon Disulfide	ND	0.0050	1	05/16/2017 13:50	
Carbon Tetrachloride	ND	0.0050	1	05/16/2017 13:50	
Chlorobenzene	ND	0.0050	1	05/16/2017 13:50	
Chloroethane	ND	0.0050	1	05/16/2017 13:50	
Chloroform	ND	0.0050	1	05/16/2017 13:50	
Chloromethane	ND	0.0050	1	05/16/2017 13:50	
2-Chlorotoluene	ND	0.0050	1	05/16/2017 13:50	
4-Chlorotoluene	ND	0.0050	1	05/16/2017 13:50	
Dibromochloromethane	ND	0.0050	1	05/16/2017 13:50	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/16/2017 13:50	
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/16/2017 13:50	
Dibromomethane	ND	0.0050	1	05/16/2017 13:50	
1,2-Dichlorobenzene	ND	0.0050	1	05/16/2017 13:50	
1,3-Dichlorobenzene	ND	0.0050	1	05/16/2017 13:50	
1,4-Dichlorobenzene	ND	0.0050	1	05/16/2017 13:50	
Dichlorodifluoromethane	ND	0.0050	1	05/16/2017 13:50	
1,1-Dichloroethane	ND	0.0050	1	05/16/2017 13:50	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/16/2017 13:50	
1,1-Dichloroethene	ND	0.0050	1	05/16/2017 13:50	
cis-1,2-Dichloroethene	ND	0.0050	1	05/16/2017 13:50	
trans-1,2-Dichloroethene	ND	0.0050	1	05/16/2017 13:50	
1,2-Dichloropropane	ND	0.0050	1	05/16/2017 13:50	
1,3-Dichloropropane	ND	0.0050	1	05/16/2017 13:50	
2,2-Dichloropropane	ND	0.0050	1	05/16/2017 13:50	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-5	1705341-007A	Soil	05/05/2017 13:05	GC38	138549
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	05/16/2017 13:50	
cis-1,3-Dichloropropene	ND	0.0050	1	05/16/2017 13:50	
trans-1,3-Dichloropropene	ND	0.0050	1	05/16/2017 13:50	
Diisopropyl ether (DIPE)	ND	0.0050	1	05/16/2017 13:50	
Ethylbenzene	ND	0.0050	1	05/16/2017 13:50	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/16/2017 13:50	
Freon 113	ND	0.0050	1	05/16/2017 13:50	
Hexachlorobutadiene	ND	0.0050	1	05/16/2017 13:50	
Hexachloroethane	ND	0.0050	1	05/16/2017 13:50	
2-Hexanone	ND	0.0050	1	05/16/2017 13:50	
Isopropylbenzene	ND	0.0050	1	05/16/2017 13:50	
4-Isopropyl toluene	ND	0.0050	1	05/16/2017 13:50	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/16/2017 13:50	
Methylene chloride	ND	0.0050	1	05/16/2017 13:50	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/16/2017 13:50	
Naphthalene	ND	0.0050	1	05/16/2017 13:50	
n-Propyl benzene	ND	0.0050	1	05/16/2017 13:50	
Styrene	ND	0.0050	1	05/16/2017 13:50	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/16/2017 13:50	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/16/2017 13:50	
Tetrachloroethene	ND	0.0050	1	05/16/2017 13:50	
Toluene	ND	0.0050	1	05/16/2017 13:50	
1,2,3-Trichlorobenzene	ND	0.0050	1	05/16/2017 13:50	
1,2,4-Trichlorobenzene	ND	0.0050	1	05/16/2017 13:50	
1,1,1-Trichloroethane	ND	0.0050	1	05/16/2017 13:50	
1,1,2-Trichloroethane	ND	0.0050	1	05/16/2017 13:50	
Trichloroethene	ND	0.0050	1	05/16/2017 13:50	
Trichlorofluoromethane	ND	0.0050	1	05/16/2017 13:50	
1,2,3-Trichloropropane	ND	0.0050	1	05/16/2017 13:50	
1,2,4-Trimethylbenzene	ND	0.0050	1	05/16/2017 13:50	
1,3,5-Trimethylbenzene	ND	0.0050	1	05/16/2017 13:50	
Vinyl Chloride	ND	0.0050	1	05/16/2017 13:50	
Xylenes, Total	ND	0.0050	1	05/16/2017 13:50	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-5	1705341-007A	Soil	05/05/2017 13:05	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	102	70-130		05/16/2017 13:50
Toluene-d8	120	70-130		05/16/2017 13:50
4-BFB	115	70-130		05/16/2017 13:50
Benzene-d6	99	60-140		05/16/2017 13:50
Ethylbenzene-d10	103	60-140		05/16/2017 13:50
1,2-DCB-d4	81	60-140		05/16/2017 13:50

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-10	1705341-008A	Soil	05/05/2017 13:10	GC28	138549

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 15:18
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 15:18
Benzene	ND	0.0050	1	05/15/2017 15:18
Bromobenzene	ND	0.0050	1	05/15/2017 15:18
Bromochloromethane	ND	0.0050	1	05/15/2017 15:18
Bromodichloromethane	ND	0.0050	1	05/15/2017 15:18
Bromoform	ND	0.0050	1	05/15/2017 15:18
Bromomethane	ND	0.0050	1	05/15/2017 15:18
2-Butanone (MEK)	ND	0.020	1	05/15/2017 15:18
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 15:18
n-Butyl benzene	ND	0.0050	1	05/15/2017 15:18
sec-Butyl benzene	ND	0.0050	1	05/15/2017 15:18
tert-Butyl benzene	ND	0.0050	1	05/15/2017 15:18
Carbon Disulfide	ND	0.0050	1	05/15/2017 15:18
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 15:18
Chlorobenzene	ND	0.0050	1	05/15/2017 15:18
Chloroethane	ND	0.0050	1	05/15/2017 15:18
Chloroform	ND	0.0050	1	05/15/2017 15:18
Chloromethane	ND	0.0050	1	05/15/2017 15:18
2-Chlorotoluene	ND	0.0050	1	05/15/2017 15:18
4-Chlorotoluene	ND	0.0050	1	05/15/2017 15:18
Dibromochloromethane	ND	0.0050	1	05/15/2017 15:18
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 15:18
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 15:18
Dibromomethane	ND	0.0050	1	05/15/2017 15:18
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 15:18
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 15:18
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 15:18
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 15:18
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 15:18
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 15:18
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 15:18
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 15:18
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 15:18
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 15:18
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 15:18
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 15:18

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-10	1705341-008A	Soil	05/05/2017 13:10	GC28	138549

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 15:18
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 15:18
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 15:18
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 15:18
Ethylbenzene	ND	0.0050	1	05/15/2017 15:18
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 15:18
Freon 113	ND	0.0050	1	05/15/2017 15:18
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 15:18
Hexachloroethane	ND	0.0050	1	05/15/2017 15:18
2-Hexanone	ND	0.0050	1	05/15/2017 15:18
Isopropylbenzene	ND	0.0050	1	05/15/2017 15:18
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 15:18
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 15:18
Methylene chloride	ND	0.0050	1	05/15/2017 15:18
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 15:18
Naphthalene	ND	0.0050	1	05/15/2017 15:18
n-Propyl benzene	ND	0.0050	1	05/15/2017 15:18
Styrene	ND	0.0050	1	05/15/2017 15:18
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 15:18
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 15:18
Tetrachloroethene	ND	0.0050	1	05/15/2017 15:18
Toluene	ND	0.0050	1	05/15/2017 15:18
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 15:18
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 15:18
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 15:18
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 15:18
Trichloroethene	ND	0.0050	1	05/15/2017 15:18
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 15:18
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 15:18
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 15:18
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 15:18
Vinyl Chloride	ND	0.0050	1	05/15/2017 15:18
Xylenes, Total	ND	0.0050	1	05/15/2017 15:18

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Analytical Report

Client: CKG Environmental

WorkOrder: 1705341

Date Received: 5/8/17 15:40

Extraction Method: SW5030B

Date Prepared: 5/9/17

Analytical Method: SW8260B

Project: OB Glass Oakland; Oil/Water Separator

Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-10	1705341-008A	Soil	05/05/2017 13:10	GC28	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	117	70-130		05/15/2017 15:18
Toluene-d8	117	70-130		05/15/2017 15:18
4-BFB	107	70-130		05/15/2017 15:18
Benzene-d6	72	60-140		05/15/2017 15:18
Ethylbenzene-d10	93	60-140		05/15/2017 15:18
1,2-DCB-d4	81	60-140		05/15/2017 15:18

Analyst(s): AK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-15	1705341-009A	Soil	05/05/2017 13:15	GC18	138549

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 14:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 14:46
Benzene	ND	0.0050	1	05/15/2017 14:46
Bromobenzene	ND	0.0050	1	05/15/2017 14:46
Bromochloromethane	ND	0.0050	1	05/15/2017 14:46
Bromodichloromethane	ND	0.0050	1	05/15/2017 14:46
Bromoform	ND	0.0050	1	05/15/2017 14:46
Bromomethane	ND	0.0050	1	05/15/2017 14:46
2-Butanone (MEK)	ND	0.020	1	05/15/2017 14:46
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 14:46
n-Butyl benzene	ND	0.0050	1	05/15/2017 14:46
sec-Butyl benzene	ND	0.0050	1	05/15/2017 14:46
tert-Butyl benzene	ND	0.0050	1	05/15/2017 14:46
Carbon Disulfide	ND	0.0050	1	05/15/2017 14:46
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 14:46
Chlorobenzene	ND	0.0050	1	05/15/2017 14:46
Chloroethane	ND	0.0050	1	05/15/2017 14:46
Chloroform	ND	0.0050	1	05/15/2017 14:46
Chloromethane	ND	0.0050	1	05/15/2017 14:46
2-Chlorotoluene	ND	0.0050	1	05/15/2017 14:46
4-Chlorotoluene	ND	0.0050	1	05/15/2017 14:46
Dibromochloromethane	ND	0.0050	1	05/15/2017 14:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 14:46
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 14:46
Dibromomethane	ND	0.0050	1	05/15/2017 14:46
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:46
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:46
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 14:46
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 14:46
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 14:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 14:46
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 14:46
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 14:46
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 14:46
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 14:46
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 14:46
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 14:46

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-15	1705341-009A	Soil	05/05/2017 13:15	GC18	138549

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 14:46
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 14:46
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 14:46
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 14:46
Ethylbenzene	ND	0.0050	1	05/15/2017 14:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 14:46
Freon 113	ND	0.0050	1	05/15/2017 14:46
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 14:46
Hexachloroethane	ND	0.0050	1	05/15/2017 14:46
2-Hexanone	ND	0.0050	1	05/15/2017 14:46
Isopropylbenzene	ND	0.0050	1	05/15/2017 14:46
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 14:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 14:46
Methylene chloride	ND	0.0050	1	05/15/2017 14:46
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 14:46
Naphthalene	ND	0.0050	1	05/15/2017 14:46
n-Propyl benzene	ND	0.0050	1	05/15/2017 14:46
Styrene	ND	0.0050	1	05/15/2017 14:46
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 14:46
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 14:46
Tetrachloroethene	ND	0.0050	1	05/15/2017 14:46
Toluene	ND	0.0050	1	05/15/2017 14:46
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 14:46
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 14:46
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 14:46
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 14:46
Trichloroethene	ND	0.0050	1	05/15/2017 14:46
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 14:46
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 14:46
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 14:46
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 14:46
Vinyl Chloride	ND	0.0050	1	05/15/2017 14:46
Xylenes, Total	ND	0.0050	1	05/15/2017 14:46

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B114-15	1705341-009A	Soil	05/05/2017 13:15	GC18	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	109	70-130		05/15/2017 14:46
Toluene-d8	128	70-130		05/15/2017 14:46
4-BFB	119	70-130		05/15/2017 14:46
Benzene-d6	118	60-140		05/15/2017 14:46
Ethylbenzene-d10	115	60-140		05/15/2017 14:46
1,2-DCB-d4	82	60-140		05/15/2017 14:46

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-5	1705341-010A	Soil	05/05/2017 14:00	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 17:11
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 17:11
Benzene	ND	0.0050	1	05/15/2017 17:11
Bromobenzene	ND	0.0050	1	05/15/2017 17:11
Bromochloromethane	ND	0.0050	1	05/15/2017 17:11
Bromodichloromethane	ND	0.0050	1	05/15/2017 17:11
Bromoform	ND	0.0050	1	05/15/2017 17:11
Bromomethane	ND	0.0050	1	05/15/2017 17:11
2-Butanone (MEK)	ND	0.020	1	05/15/2017 17:11
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 17:11
n-Butyl benzene	ND	0.0050	1	05/15/2017 17:11
sec-Butyl benzene	ND	0.0050	1	05/15/2017 17:11
tert-Butyl benzene	ND	0.0050	1	05/15/2017 17:11
Carbon Disulfide	ND	0.0050	1	05/15/2017 17:11
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 17:11
Chlorobenzene	ND	0.0050	1	05/15/2017 17:11
Chloroethane	ND	0.0050	1	05/15/2017 17:11
Chloroform	ND	0.0050	1	05/15/2017 17:11
Chloromethane	ND	0.0050	1	05/15/2017 17:11
2-Chlorotoluene	ND	0.0050	1	05/15/2017 17:11
4-Chlorotoluene	ND	0.0050	1	05/15/2017 17:11
Dibromochloromethane	ND	0.0050	1	05/15/2017 17:11
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 17:11
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 17:11
Dibromomethane	ND	0.0050	1	05/15/2017 17:11
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:11
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:11
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:11
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 17:11
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 17:11
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 17:11
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 17:11
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 17:11
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 17:11
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 17:11
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 17:11
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 17:11

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-5	1705341-010A	Soil	05/05/2017 14:00	GC38	138549
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 17:11	
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 17:11	
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 17:11	
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 17:11	
Ethylbenzene	ND	0.0050	1	05/15/2017 17:11	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 17:11	
Freon 113	ND	0.0050	1	05/15/2017 17:11	
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 17:11	
Hexachloroethane	ND	0.0050	1	05/15/2017 17:11	
2-Hexanone	ND	0.0050	1	05/15/2017 17:11	
Isopropylbenzene	ND	0.0050	1	05/15/2017 17:11	
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 17:11	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 17:11	
Methylene chloride	ND	0.0050	1	05/15/2017 17:11	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 17:11	
Naphthalene	ND	0.0050	1	05/15/2017 17:11	
n-Propyl benzene	ND	0.0050	1	05/15/2017 17:11	
Styrene	ND	0.0050	1	05/15/2017 17:11	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 17:11	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 17:11	
Tetrachloroethene	ND	0.0050	1	05/15/2017 17:11	
Toluene	ND	0.0050	1	05/15/2017 17:11	
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 17:11	
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 17:11	
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 17:11	
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 17:11	
Trichloroethene	ND	0.0050	1	05/15/2017 17:11	
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 17:11	
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 17:11	
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 17:11	
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 17:11	
Vinyl Chloride	ND	0.0050	1	05/15/2017 17:11	
Xylenes, Total	ND	0.0050	1	05/15/2017 17:11	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-5	1705341-010A	Soil	05/05/2017 14:00	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	107	70-130		05/15/2017 17:11
Toluene-d8	122	70-130		05/15/2017 17:11
4-BFB	116	70-130		05/15/2017 17:11
Benzene-d6	105	60-140		05/15/2017 17:11
Ethylbenzene-d10	106	60-140		05/15/2017 17:11
1,2-DCB-d4	82	60-140		05/15/2017 17:11

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-10	1705341-011A	Soil	05/05/2017 14:05	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 17:49
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 17:49
Benzene	ND	0.0050	1	05/15/2017 17:49
Bromobenzene	ND	0.0050	1	05/15/2017 17:49
Bromochloromethane	ND	0.0050	1	05/15/2017 17:49
Bromodichloromethane	ND	0.0050	1	05/15/2017 17:49
Bromoform	ND	0.0050	1	05/15/2017 17:49
Bromomethane	ND	0.0050	1	05/15/2017 17:49
2-Butanone (MEK)	ND	0.020	1	05/15/2017 17:49
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 17:49
n-Butyl benzene	ND	0.0050	1	05/15/2017 17:49
sec-Butyl benzene	ND	0.0050	1	05/15/2017 17:49
tert-Butyl benzene	ND	0.0050	1	05/15/2017 17:49
Carbon Disulfide	ND	0.0050	1	05/15/2017 17:49
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 17:49
Chlorobenzene	ND	0.0050	1	05/15/2017 17:49
Chloroethane	ND	0.0050	1	05/15/2017 17:49
Chloroform	ND	0.0050	1	05/15/2017 17:49
Chloromethane	ND	0.0050	1	05/15/2017 17:49
2-Chlorotoluene	ND	0.0050	1	05/15/2017 17:49
4-Chlorotoluene	ND	0.0050	1	05/15/2017 17:49
Dibromochloromethane	ND	0.0050	1	05/15/2017 17:49
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 17:49
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 17:49
Dibromomethane	ND	0.0050	1	05/15/2017 17:49
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:49
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:49
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 17:49
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 17:49
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 17:49
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 17:49
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 17:49
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 17:49
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 17:49
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 17:49
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 17:49
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 17:49

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-10	1705341-011A	Soil	05/05/2017 14:05	GC38	138549
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 17:49	
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 17:49	
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 17:49	
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 17:49	
Ethylbenzene	ND	0.0050	1	05/15/2017 17:49	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 17:49	
Freon 113	ND	0.0050	1	05/15/2017 17:49	
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 17:49	
Hexachloroethane	ND	0.0050	1	05/15/2017 17:49	
2-Hexanone	ND	0.0050	1	05/15/2017 17:49	
Isopropylbenzene	ND	0.0050	1	05/15/2017 17:49	
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 17:49	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 17:49	
Methylene chloride	ND	0.0050	1	05/15/2017 17:49	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 17:49	
Naphthalene	ND	0.0050	1	05/15/2017 17:49	
n-Propyl benzene	ND	0.0050	1	05/15/2017 17:49	
Styrene	ND	0.0050	1	05/15/2017 17:49	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 17:49	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 17:49	
Tetrachloroethene	ND	0.0050	1	05/15/2017 17:49	
Toluene	ND	0.0050	1	05/15/2017 17:49	
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 17:49	
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 17:49	
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 17:49	
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 17:49	
Trichloroethene	ND	0.0050	1	05/15/2017 17:49	
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 17:49	
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 17:49	
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 17:49	
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 17:49	
Vinyl Chloride	ND	0.0050	1	05/15/2017 17:49	
Xylenes, Total	ND	0.0050	1	05/15/2017 17:49	

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-10	1705341-011A	Soil	05/05/2017 14:05	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	108	70-130		05/15/2017 17:49
Toluene-d8	118	70-130		05/15/2017 17:49
4-BFB	111	70-130		05/15/2017 17:49
Benzene-d6	100	60-140		05/15/2017 17:49
Ethylbenzene-d10	101	60-140		05/15/2017 17:49
1,2-DCB-d4	80	60-140		05/15/2017 17:49

Analyst(s): HK



Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-14.5	1705341-012A	Soil	05/05/2017 14:10	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	05/15/2017 18:26
tert-Amyl methyl ether (TAME)	ND	0.0050	1	05/15/2017 18:26
Benzene	ND	0.0050	1	05/15/2017 18:26
Bromobenzene	ND	0.0050	1	05/15/2017 18:26
Bromochloromethane	ND	0.0050	1	05/15/2017 18:26
Bromodichloromethane	ND	0.0050	1	05/15/2017 18:26
Bromoform	ND	0.0050	1	05/15/2017 18:26
Bromomethane	ND	0.0050	1	05/15/2017 18:26
2-Butanone (MEK)	ND	0.020	1	05/15/2017 18:26
t-Butyl alcohol (TBA)	ND	0.050	1	05/15/2017 18:26
n-Butyl benzene	ND	0.0050	1	05/15/2017 18:26
sec-Butyl benzene	ND	0.0050	1	05/15/2017 18:26
tert-Butyl benzene	ND	0.0050	1	05/15/2017 18:26
Carbon Disulfide	ND	0.0050	1	05/15/2017 18:26
Carbon Tetrachloride	ND	0.0050	1	05/15/2017 18:26
Chlorobenzene	ND	0.0050	1	05/15/2017 18:26
Chloroethane	ND	0.0050	1	05/15/2017 18:26
Chloroform	ND	0.0050	1	05/15/2017 18:26
Chloromethane	ND	0.0050	1	05/15/2017 18:26
2-Chlorotoluene	ND	0.0050	1	05/15/2017 18:26
4-Chlorotoluene	ND	0.0050	1	05/15/2017 18:26
Dibromochloromethane	ND	0.0050	1	05/15/2017 18:26
1,2-Dibromo-3-chloropropane	ND	0.0040	1	05/15/2017 18:26
1,2-Dibromoethane (EDB)	ND	0.0040	1	05/15/2017 18:26
Dibromomethane	ND	0.0050	1	05/15/2017 18:26
1,2-Dichlorobenzene	ND	0.0050	1	05/15/2017 18:26
1,3-Dichlorobenzene	ND	0.0050	1	05/15/2017 18:26
1,4-Dichlorobenzene	ND	0.0050	1	05/15/2017 18:26
Dichlorodifluoromethane	ND	0.0050	1	05/15/2017 18:26
1,1-Dichloroethane	ND	0.0050	1	05/15/2017 18:26
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	05/15/2017 18:26
1,1-Dichloroethene	ND	0.0050	1	05/15/2017 18:26
cis-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 18:26
trans-1,2-Dichloroethene	ND	0.0050	1	05/15/2017 18:26
1,2-Dichloropropane	ND	0.0050	1	05/15/2017 18:26
1,3-Dichloropropane	ND	0.0050	1	05/15/2017 18:26
2,2-Dichloropropane	ND	0.0050	1	05/15/2017 18:26

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-14.5	1705341-012A	Soil	05/05/2017 14:10	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	05/15/2017 18:26
cis-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 18:26
trans-1,3-Dichloropropene	ND	0.0050	1	05/15/2017 18:26
Diisopropyl ether (DIPE)	ND	0.0050	1	05/15/2017 18:26
Ethylbenzene	ND	0.0050	1	05/15/2017 18:26
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	05/15/2017 18:26
Freon 113	ND	0.0050	1	05/15/2017 18:26
Hexachlorobutadiene	ND	0.0050	1	05/15/2017 18:26
Hexachloroethane	ND	0.0050	1	05/15/2017 18:26
2-Hexanone	ND	0.0050	1	05/15/2017 18:26
Isopropylbenzene	ND	0.0050	1	05/15/2017 18:26
4-Isopropyl toluene	ND	0.0050	1	05/15/2017 18:26
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	05/15/2017 18:26
Methylene chloride	ND	0.0050	1	05/15/2017 18:26
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	05/15/2017 18:26
Naphthalene	ND	0.0050	1	05/15/2017 18:26
n-Propyl benzene	ND	0.0050	1	05/15/2017 18:26
Styrene	ND	0.0050	1	05/15/2017 18:26
1,1,1,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 18:26
1,1,2,2-Tetrachloroethane	ND	0.0050	1	05/15/2017 18:26
Tetrachloroethene	ND	0.0050	1	05/15/2017 18:26
Toluene	ND	0.0050	1	05/15/2017 18:26
1,2,3-Trichlorobenzene	ND	0.0050	1	05/15/2017 18:26
1,2,4-Trichlorobenzene	ND	0.0050	1	05/15/2017 18:26
1,1,1-Trichloroethane	ND	0.0050	1	05/15/2017 18:26
1,1,2-Trichloroethane	ND	0.0050	1	05/15/2017 18:26
Trichloroethene	ND	0.0050	1	05/15/2017 18:26
Trichlorofluoromethane	ND	0.0050	1	05/15/2017 18:26
1,2,3-Trichloropropane	ND	0.0050	1	05/15/2017 18:26
1,2,4-Trimethylbenzene	ND	0.0050	1	05/15/2017 18:26
1,3,5-Trimethylbenzene	ND	0.0050	1	05/15/2017 18:26
Vinyl Chloride	ND	0.0050	1	05/15/2017 18:26
Xylenes, Total	ND	0.0050	1	05/15/2017 18:26

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Analytical Report

Client: CKG Environmental
Date Received: 5/8/17 15:40
Date Prepared: 5/9/17
Project: OB Glass Oakland; Oil/Water Separator

WorkOrder: 1705341
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B112-14.5	1705341-012A	Soil	05/05/2017 14:10	GC38	138549

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	111		70-130	05/15/2017 18:26
Toluene-d8	115		70-130	05/15/2017 18:26
4-BFB	109		70-130	05/15/2017 18:26
Benzene-d6	92		60-140	05/15/2017 18:26
Ethylbenzene-d10	88		60-140	05/15/2017 18:26
1,2-DCB-d4	73		60-140	05/15/2017 18:26

Analyst(s): HK



Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/8/17	BatchID:	138484
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138484

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0050	-	-	-
Benzene	ND	0.0050	-	-	-
Bromobenzene	ND	0.0050	-	-	-
Bromochloromethane	ND	0.0050	-	-	-
Bromodichloromethane	ND	0.0050	-	-	-
Bromoform	ND	0.0050	-	-	-
Bromomethane	ND	0.0050	-	-	-
2-Butanone (MEK)	ND	0.020	-	-	-
t-Butyl alcohol (TBA)	ND	0.050	-	-	-
n-Butyl benzene	ND	0.0050	-	-	-
sec-Butyl benzene	ND	0.0050	-	-	-
tert-Butyl benzene	ND	0.0050	-	-	-
Carbon Disulfide	ND	0.0050	-	-	-
Carbon Tetrachloride	ND	0.0050	-	-	-
Chlorobenzene	ND	0.0050	-	-	-
Chloroethane	ND	0.0050	-	-	-
Chloroform	ND	0.0050	-	-	-
Chloromethane	ND	0.0050	-	-	-
2-Chlorotoluene	ND	0.0050	-	-	-
4-Chlorotoluene	ND	0.0050	-	-	-
Dibromochloromethane	ND	0.0050	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0040	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0040	-	-	-
Dibromomethane	ND	0.0050	-	-	-
1,2-Dichlorobenzene	ND	0.0050	-	-	-
1,3-Dichlorobenzene	ND	0.0050	-	-	-
1,4-Dichlorobenzene	ND	0.0050	-	-	-
Dichlorodifluoromethane	ND	0.0050	-	-	-
1,1-Dichloroethane	ND	0.0050	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	-	-	-
1,1-Dichloroethene	ND	0.0050	-	-	-
cis-1,2-Dichloroethene	ND	0.0050	-	-	-
trans-1,2-Dichloroethene	ND	0.0050	-	-	-
1,2-Dichloropropane	ND	0.0050	-	-	-
1,3-Dichloropropane	ND	0.0050	-	-	-
2,2-Dichloropropane	ND	0.0050	-	-	-
1,1-Dichloropropene	ND	0.0050	-	-	-
cis-1,3-Dichloropropene	ND	0.0050	-	-	-

(Cont.)



Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/8/17	BatchID:	138484
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138484

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.0050	-	-	-
Diisopropyl ether (DIPE)	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0050	-	-	-
Freon 113	ND	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0050	-	-	-
Hexachloroethane	ND	0.0050	-	-	-
2-Hexanone	ND	0.0050	-	-	-
Isopropylbenzene	ND	0.0050	-	-	-
4-Isopropyl toluene	ND	0.0050	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0050	-	-	-
Methylene chloride	ND	0.0050	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.0050	-	-	-
Naphthalene	ND	0.0050	-	-	-
n-Propyl benzene	ND	0.0050	-	-	-
Styrene	ND	0.0050	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0050	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0050	-	-	-
Tetrachloroethene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
1,2,3-Trichlorobenzene	ND	0.0050	-	-	-
1,2,4-Trichlorobenzene	ND	0.0050	-	-	-
1,1,1-Trichloroethane	ND	0.0050	-	-	-
1,1,2-Trichloroethane	ND	0.0050	-	-	-
Trichloroethene	ND	0.0050	-	-	-
Trichlorofluoromethane	ND	0.0050	-	-	-
1,2,3-Trichloropropane	ND	0.0050	-	-	-
1,2,4-Trimethylbenzene	ND	0.0050	-	-	-
1,3,5-Trimethylbenzene	ND	0.0050	-	-	-
Vinyl Chloride	ND	0.0050	-	-	-
Xylenes, Total	ND	0.0050	-	-	-

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Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/8/17	BatchID:	138484
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138484

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery					
Dibromofluoromethane	0.1468		0.12	117	70-130
Toluene-d8	0.1495		0.12	120	70-130
4-BFB	0.01479		0.012	118	70-130
Benzene-d6	0.09975		0.10	100	60-140
Ethylbenzene-d10	0.1069		0.10	107	60-140
1,2-DCB-d4	0.07927		0.10	79	60-140

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0403	0.0368	0.050	81	74	53-116	9.19	20
Benzene	0.0484	0.0449	0.050	97	90	63-137	7.58	20
t-Butyl alcohol (TBA)	0.126	0.154	0.20	63	77	41-135	20.1,F2	20
Chlorobenzene	0.0495	0.0464	0.050	99	93	77-121	6.66	20
1,2-Dibromoethane (EDB)	0.0469	0.0426	0.050	94	85	67-119	9.57	20
1,2-Dichloroethane (1,2-DCA)	0.0502	0.0459	0.050	100	92	58-135	8.93	20
1,1-Dichloroethene	0.0357	0.0463	0.050	71	93	42-145	26.0,F2	20
Diisopropyl ether (DIPE)	0.0315	0.0414	0.050	63	83	52-129	27.0,F2	20
Ethyl tert-butyl ether (ETBE)	0.0355	0.0407	0.050	71	81	53-125	13.6	20
Methyl-t-butyl ether (MTBE)	0.0330	0.0398	0.050	66	80	58-122	18.8	20
Toluene	0.0537	0.0491	0.050	107	98	76-130	8.86	20
Trichloroethene	0.0527	0.0554	0.050	105	111	72-132	5.03	20

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.150	0.149	0.12	120	119	70-130	0.659	20
Toluene-d8	0.151	0.150	0.12	121	120	70-130	0.670	20
4-BFB	0.0144	0.0141	0.012	115	113	70-130	1.64	20
Benzene-d6	0.108	0.105	0.10	108	105	60-140	2.79	20
Ethylbenzene-d10	0.118	0.114	0.10	117	114	60-140	2.91	20
1,2-DCB-d4	0.0923	0.0885	0.10	92	88	60-140	4.23	20

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Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/9/17	BatchID:	138549
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC10, GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138549

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0050	-	-	-
Benzene	ND	0.0050	-	-	-
Bromobenzene	ND	0.0050	-	-	-
Bromochloromethane	ND	0.0050	-	-	-
Bromodichloromethane	ND	0.0050	-	-	-
Bromoform	ND	0.0050	-	-	-
Bromomethane	ND	0.0050	-	-	-
2-Butanone (MEK)	ND	0.020	-	-	-
t-Butyl alcohol (TBA)	ND	0.050	-	-	-
n-Butyl benzene	ND	0.0050	-	-	-
sec-Butyl benzene	ND	0.0050	-	-	-
tert-Butyl benzene	ND	0.0050	-	-	-
Carbon Disulfide	ND	0.0050	-	-	-
Carbon Tetrachloride	ND	0.0050	-	-	-
Chlorobenzene	ND	0.0050	-	-	-
Chloroethane	ND	0.0050	-	-	-
Chloroform	ND	0.0050	-	-	-
Chloromethane	ND	0.0050	-	-	-
2-Chlorotoluene	ND	0.0050	-	-	-
4-Chlorotoluene	ND	0.0050	-	-	-
Dibromochloromethane	ND	0.0050	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0040	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0040	-	-	-
Dibromomethane	ND	0.0050	-	-	-
1,2-Dichlorobenzene	ND	0.0050	-	-	-
1,3-Dichlorobenzene	ND	0.0050	-	-	-
1,4-Dichlorobenzene	ND	0.0050	-	-	-
Dichlorodifluoromethane	ND	0.0050	-	-	-
1,1-Dichloroethane	ND	0.0050	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	-	-	-
1,1-Dichloroethene	ND	0.0050	-	-	-
cis-1,2-Dichloroethene	ND	0.0050	-	-	-
trans-1,2-Dichloroethene	ND	0.0050	-	-	-
1,2-Dichloropropane	ND	0.0050	-	-	-
1,3-Dichloropropane	ND	0.0050	-	-	-
2,2-Dichloropropane	ND	0.0050	-	-	-
1,1-Dichloropropene	ND	0.0050	-	-	-
cis-1,3-Dichloropropene	ND	0.0050	-	-	-

(Cont.)



Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/9/17	BatchID:	138549
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC10, GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138549

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.0050	-	-	-
Diisopropyl ether (DIPE)	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0050	-	-	-
Freon 113	ND	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0050	-	-	-
Hexachloroethane	ND	0.0050	-	-	-
2-Hexanone	ND	0.0050	-	-	-
Isopropylbenzene	ND	0.0050	-	-	-
4-Isopropyl toluene	ND	0.0050	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0050	-	-	-
Methylene chloride	ND	0.0050	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.0050	-	-	-
Naphthalene	ND	0.0050	-	-	-
n-Propyl benzene	ND	0.0050	-	-	-
Styrene	ND	0.0050	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0050	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0050	-	-	-
Tetrachloroethene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
1,2,3-Trichlorobenzene	ND	0.0050	-	-	-
1,2,4-Trichlorobenzene	ND	0.0050	-	-	-
1,1,1-Trichloroethane	ND	0.0050	-	-	-
1,1,2-Trichloroethane	ND	0.0050	-	-	-
Trichloroethene	ND	0.0050	-	-	-
Trichlorofluoromethane	ND	0.0050	-	-	-
1,2,3-Trichloropropane	ND	0.0050	-	-	-
1,2,4-Trimethylbenzene	ND	0.0050	-	-	-
1,3,5-Trimethylbenzene	ND	0.0050	-	-	-
Vinyl Chloride	ND	0.0050	-	-	-
Xylenes, Total	ND	0.0050	-	-	-

(Cont.)



Quality Control Report

Client:	CKG Environmental	WorkOrder:	1705341
Date Prepared:	5/9/17	BatchID:	138549
Date Analyzed:	5/10/17	Extraction Method:	SW5030B
Instrument:	GC10, GC18	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	OB Glass Oakland; Oil/Water Separator	Sample ID:	MB/LCS/LCSD-138549

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery					
Dibromofluoromethane	0.1272		0.12	102	70-130
Toluene-d8	0.1435		0.12	115	70-130
4-BFB	0.01296		0.012	104	70-130
Benzene-d6	0.09746		0.10	97	60-140
Ethylbenzene-d10	0.113		0.10	113	60-140
1,2-DCB-d4	0.08338		0.10	83	60-140

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0338	0.0357	0.050	68	71	53-116	18.2	20
Benzene	0.0388	0.0422	0.050	77	84	63-137	3.81	20
t-Butyl alcohol (TBA)	0.112	0.145	0.20	56	72	41-135	24.2,F2	20
Chlorobenzene	0.0427	0.0444	0.050	85	89	77-121	7.06	20
1,2-Dibromoethane (EDB)	0.0398	0.0416	0.050	80	83	67-119	3.20	20
1,2-Dichloroethane (1,2-DCA)	0.0412	0.0440	0.050	82	88	58-135	1.87	20
1,1-Dichloroethene	0.0257	0.0431	0.050	51	86	42-145	10.0	20
Diisopropyl ether (DIPE)	0.0368	0.0394	0.050	74	79	52-129	3.73	20
Ethyl tert-butyl ether (ETBE)	0.0363	0.0391	0.050	73	78	53-125	7.21	20
Methyl-t-butyl ether (MTBE)	0.0278	0.0388	0.050	56, F2	77	58-122	6.05	20
Toluene	0.0434	0.0469	0.050	87	94	76-130	4.18	20
Trichloroethene	0.0485	0.0460	0.050	97	92	72-132	2.69	20

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.148	0.149	0.12	118	119	70-130	15.1	20
Toluene-d8	0.149	0.150	0.12	119	120	70-130	2.82	20
4-BFB	0.0143	0.0142	0.012	114	114	70-130	0	20
Benzene-d6	0.0920	0.0946	0.10	92	95	60-140	4.36	20
Ethylbenzene-d10	0.102	0.104	0.10	102	104	60-140	3.28	20
1,2-DCB-d4	0.0826	0.0825	0.10	83	83	60-140	0	20



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1705341

ClientCode: CKGS

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 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: OB Glass Oakland; Oil/Water Separator

Bill to:

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

Requested TAT: 5 days;

Date Received: 05/08/2017

Date Logged: 05/09/2017

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1705341-001	B113-5	Soil	5/5/2017 10:50	<input type="checkbox"/>	A												
1705341-002	B113-10	Soil	5/5/2017 11:00	<input type="checkbox"/>	A												
1705341-003	B113-13	Soil	5/5/2017 11:05	<input type="checkbox"/>	A												
1705341-004	B115-5	Soil	5/5/2017 11:45	<input type="checkbox"/>	A												
1705341-005	B115-10	Soil	5/5/2017 11:50	<input type="checkbox"/>	A												
1705341-006	B115-12.5	Soil	5/5/2017 11:55	<input type="checkbox"/>	A												
1705341-007	B114-5	Soil	5/5/2017 13:05	<input type="checkbox"/>	A												
1705341-008	B114-10	Soil	5/5/2017 13:10	<input type="checkbox"/>	A												
1705341-009	B114-15	Soil	5/5/2017 13:15	<input type="checkbox"/>	A												
1705341-010	B112-5	Soil	5/5/2017 14:00	<input type="checkbox"/>	A												
1705341-011	B112-10	Soil	5/5/2017 14:05	<input type="checkbox"/>	A												
1705341-012	B112-14.5	Soil	5/5/2017 14:10	<input type="checkbox"/>	A												

Test Legend:

1	8260B_S	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Jena Alfaro

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: OB Glass Oakland; Oil/Water Separator

Work Order: 1705341

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 5/9/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1705341-001A	B113-5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 10:50	5 days		<input type="checkbox"/>	
1705341-002A	B113-10	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 11:00	5 days		<input type="checkbox"/>	
1705341-003A	B113-13	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 11:05	5 days		<input type="checkbox"/>	
1705341-004A	B115-5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 11:45	5 days		<input type="checkbox"/>	
1705341-005A	B115-10	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 11:50	5 days		<input type="checkbox"/>	
1705341-006A	B115-12.5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 11:55	5 days		<input type="checkbox"/>	
1705341-007A	B114-5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 13:05	5 days		<input type="checkbox"/>	
1705341-008A	B114-10	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 13:10	5 days		<input type="checkbox"/>	
1705341-009A	B114-15	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 13:15	5 days		<input type="checkbox"/>	
1705341-010A	B112-5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 14:00	5 days		<input type="checkbox"/>	
1705341-011A	B112-10	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 14:05	5 days		<input type="checkbox"/>	
1705341-012A	B112-14.5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	5/5/2017 14:10	5 days		<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.

1705341

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
 PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com Email: main@mccampbell.com
 Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME
 RUSH 24 HR 48 HR 72 HR 5 DAY
 EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Chris Kennedy Bill To: CKG Environmental
 Company: CKG Environmental, Inc.
 P.O. Box 246
 St. Helena, CA 94574 E-Mail: ckennedy@geologist.com
 Tele: (707) 967-8080 Fax: (707) 967-8080
 Project #: OB Glass Oakland Project Name: PCB Basement Separator
 Project Location: 3600 Alameda Avenue, Oakland, CA
 Sampler Signature: *[Signature]*

Analysis Request											Other	Comments					
BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8269	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Total PCBs by: 8082A. Soxhlet Extraction in dry weight with GPC cleanup if needed	Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED						
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
B113-5		S.S. 17	1050	1	ACE												
B113-10			1100	1													
B113-13			1105	1													
B115-5			1145														
B115-10			1150														
B115-12.5			1155														
B114-5			1305														
B114-10			1310														
B114-15			1315														
B112-5			1400														
B112-10			1405														
B112-14.5			1410														

Relinquished By: *[Signature]* Date: 5/18/14 Time: 0845 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: 5/21/14 Time: 540 Received By: *[Signature]*
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/° 416
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____
 COMMENTS: *[Signature]* ANALYZE END OCTOBE W/ AR200.
 PRESERVATION VOAS | O&G | METALS | OTHER
 pH<2



Sample Receipt Checklist

Client Name: **CKG Environmental**
 Project Name: **OB Glass Oakland; Oil/Water Separator**
 WorkOrder No: **1705341** Matrix: Soil
 Carrier: Bernie Cummins (MAI Courier)

Date and Time Received: **5/8/2017 15:40**
 Date Logged: **5/9/2017**
 Received by: Jena Alfaro
 Logged by: Jena Alfaro

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No NA
 Sample/Temp Blank temperature Temp: 4.6°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:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1706489

Report Created for: CKG Environmental

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

Project Contact: Christina Kennedy

Project P.O.:

Project Name: Owens Brockway Soil Vapor Investigation

Project Received: 06/09/2017

Analytical Report reviewed & approved for release on 06/21/2017 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: Owens Brockway Soil Vapor Investigation
WorkOrder: 1706489

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
ERS	External reference sample. Second source calibration verification.
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)

Analytical Qualifiers

a10 Reporting limit changed due to variable volume of air that pumped through each filter / sorbent tube.



Case Narrative

Client: CKG Environmental
Project: Owens Brockway Soil Vapor Investigation

Work Order: 1706489
June 21, 2017

TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Active Soil Gas Advisory of July 2015.



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/16/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	11	0.40	1	06/16/2017 11:47

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	13	0.40	1	06/16/2017 12:09

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10 DUP	1706489-003A	SoilGas	06/07/2017 18:21	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.17	28.29	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	16	0.40	1	06/16/2017 12:30



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/16/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Atmospheric Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	10	0.40	1	06/16/2017 12:51

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10 DUP	1706489-005A	SoilGas	06/08/2017 17:13	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.44	24.87	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	23	2.0	5	06/16/2017 16:04

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5 DUP	1706489-006A	SoilGas	06/08/2017 17:13	GC26	140739

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
11.75	23.48	AK

Analytes	Result	RL	DF	Date Analyzed
Oxygen	2.6	0.40	1	06/16/2017 13:33

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/13/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC26	140377

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	22	5.0	100	06/13/2017 14:37

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC26	140377

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	15	5.0	100	06/13/2017 14:50

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10 DUP	1706489-003A	SoilGas	06/07/2017 18:21	GC26	140377

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.17	28.29	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	0.44	0.050	1	06/13/2017 10:57

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/13/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Helium

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC26	140377

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	0.052	0.050	1	06/13/2017 11:10

SV46-10 DUP	1706489-005A	SoilGas	06/08/2017 17:13	GC26	140377
-------------	--------------	---------	------------------	------	--------

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.44	24.87	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	ND	0.050	1	06/13/2017 11:23

SV47-5 DUP	1706489-006A	SoilGas	06/08/2017 17:13	GC26	140377
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Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
11.75	23.48	AK

Analytes	Result	RL	DF	Date Analyzed
Helium	1.4	0.50	10	06/13/2017 14:24

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/15/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC26	140738

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	0.025	0.0040	1	06/15/2017 13:28
Methane	0.0017	0.00020	1	06/15/2017 13:28

SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC26	140738
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Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	0.031	0.0040	1	06/15/2017 13:49
Methane	0.00032	0.00020	1	06/15/2017 13:49

SV47-10 DUP	1706489-003A	SoilGas	06/07/2017 18:21	GC26	140738
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Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.17	28.29	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	0.038	0.0040	1	06/15/2017 14:10
Methane	ND	0.00020	1	06/15/2017 14:10

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/15/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: ASTM D 1946-90
Analytical Method: ASTM D 1946-90
Unit: %

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC26	140738

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	ND	0.0040	1	06/15/2017 14:31
Methane	0.0011	0.00020	1	06/15/2017 14:31

SV46-10 DUP	1706489-005A	SoilGas	06/08/2017 17:13	GC26	140738
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Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.44	24.87	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	ND	0.0040	1	06/15/2017 14:52
Methane	0.0012	0.00020	1	06/15/2017 14:52

SV47-5 DUP	1706489-006A	SoilGas	06/08/2017 17:13	GC26	140738
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Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
11.75	23.48	AK

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	ND	0.0040	1	06/15/2017 15:13
Methane	0.011	0.00020	1	06/15/2017 15:13

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/20/17-6/21/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

TPH gas

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	720	1	06/20/2017 23:36
Surrogates	REC (%)	Limits		
1,2-DCA-d4	90	70-130		06/20/2017 23:36

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	720	1	06/21/2017 00:20
Surrogates	REC (%)	Limits		
1,2-DCA-d4	91	70-130		06/21/2017 00:20

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	13,000	720	1	06/21/2017 01:00
Surrogates	REC (%)	Limits		
1,2-DCA-d4	96	70-130		06/21/2017 01:00

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	06/19/2017 20:11
Acrolein	ND	5.8	1	06/19/2017 20:11
Acrylonitrile	ND	1.1	1	06/19/2017 20:11
tert-Amyl methyl ether (TAME)	ND	2.1	1	06/19/2017 20:11
Benzene	10	1.6	1	06/19/2017 20:11
Benzyl chloride	ND	2.6	1	06/19/2017 20:11
Bromodichloromethane	ND	3.5	1	06/19/2017 20:11
Bromoform	ND	5.2	1	06/19/2017 20:11
Bromomethane	3.5	2.0	1	06/19/2017 20:11
1,3-Butadiene	ND	1.1	1	06/19/2017 20:11
2-Butanone (MEK)	ND	75	1	06/19/2017 20:11
t-Butyl alcohol (TBA)	ND	31	1	06/19/2017 20:11
Carbon Disulfide	18	1.6	1	06/19/2017 20:11
Carbon Tetrachloride	ND	3.2	1	06/19/2017 20:11
Chlorobenzene	ND	2.4	1	06/19/2017 20:11
Chloroethane	ND	1.3	1	06/19/2017 20:11
Chloroform	ND	2.4	1	06/19/2017 20:11
Chloromethane	ND	1.0	1	06/19/2017 20:11
Cyclohexane	ND	18	1	06/19/2017 20:11
Dibromochloromethane	ND	4.4	1	06/19/2017 20:11
1,2-Dibromo-3-chloropropane	ND	0.12	1	06/19/2017 20:11
1,2-Dibromoethane (EDB)	ND	3.9	1	06/19/2017 20:11
1,2-Dichlorobenzene	ND	3.0	1	06/19/2017 20:11
1,3-Dichlorobenzene	ND	3.0	1	06/19/2017 20:11
1,4-Dichlorobenzene	ND	3.0	1	06/19/2017 20:11
Dichlorodifluoromethane	ND	2.5	1	06/19/2017 20:11
1,1-Dichloroethane	ND	2.0	1	06/19/2017 20:11
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	06/19/2017 20:11
1,1-Dichloroethene	ND	2.0	1	06/19/2017 20:11
cis-1,2-Dichloroethene	ND	2.0	1	06/19/2017 20:11
trans-1,2-Dichloroethene	ND	2.0	1	06/19/2017 20:11
1,2-Dichloropropane	ND	2.4	1	06/19/2017 20:11
cis-1,3-Dichloropropene	ND	2.3	1	06/19/2017 20:11

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Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	2.3	1	06/19/2017 20:11
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	06/19/2017 20:11
Diisopropyl ether (DIPE)	ND	2.1	1	06/19/2017 20:11
1,4-Dioxane	ND	1.8	1	06/19/2017 20:11
Ethanol	ND	96	1	06/19/2017 20:11
Ethyl acetate	ND	1.8	1	06/19/2017 20:11
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	06/19/2017 20:11
Ethylbenzene	ND	2.2	1	06/19/2017 20:11
4-Ethyltoluene	ND	2.5	1	06/19/2017 20:11
Freon 113	ND	3.9	1	06/19/2017 20:11
Heptane	ND	21	1	06/19/2017 20:11
Hexachlorobutadiene	ND	5.4	1	06/19/2017 20:11
Hexane	30	18	1	06/19/2017 20:11
2-Hexanone	ND	2.1	1	06/19/2017 20:11
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	06/19/2017 20:11
Methyl-t-butyl ether (MTBE)	ND	1.8	1	06/19/2017 20:11
Methylene chloride	ND	8.8	1	06/19/2017 20:11
Methyl methacrylate	ND	2.1	1	06/19/2017 20:11
Naphthalene	ND	5.3	1	06/19/2017 20:11
Propene	ND	88	1	06/19/2017 20:11
Styrene	ND	2.2	1	06/19/2017 20:11
1,1,1,2-Tetrachloroethane	ND	3.5	1	06/19/2017 20:11
1,1,2,2-Tetrachloroethane	ND	3.5	1	06/19/2017 20:11
Tetrachloroethene	ND	3.4	1	06/19/2017 20:11
Tetrahydrofuran	ND	3.0	1	06/19/2017 20:11
Toluene	7.6	1.9	1	06/19/2017 20:11
1,2,4-Trichlorobenzene	ND	3.8	1	06/19/2017 20:11
1,1,1-Trichloroethane	ND	2.8	1	06/19/2017 20:11
1,1,2-Trichloroethane	ND	2.8	1	06/19/2017 20:11
Trichloroethene	ND	2.8	1	06/19/2017 20:11
Trichlorofluoromethane	ND	2.8	1	06/19/2017 20:11
1,2,4-Trimethylbenzene	ND	2.5	1	06/19/2017 20:11
1,3,5-Trimethylbenzene	ND	2.5	1	06/19/2017 20:11

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 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5	1706489-001A	SoilGas	06/07/2017 16:32	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.47	24.84	AK

Analytes	Result	RL	DF	Date Analyzed
Vinyl Acetate	ND	18	1	06/19/2017 20:11
Vinyl Chloride	ND	1.3	1	06/19/2017 20:11
Xylenes, Total	ND	6.6	1	06/19/2017 20:11
Surrogates	REC (%)	Limits		
1,2-DCA-d4	90	70-130		06/19/2017 20:11
Toluene-d8	96	70-130		06/19/2017 20:11
4-BFB	90	70-130		06/19/2017 20:11



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	06/19/2017 20:50
Acrolein	ND	5.8	1	06/19/2017 20:50
Acrylonitrile	ND	1.1	1	06/19/2017 20:50
tert-Amyl methyl ether (TAME)	ND	2.1	1	06/19/2017 20:50
Benzene	ND	1.6	1	06/19/2017 20:50
Benzyl chloride	ND	2.6	1	06/19/2017 20:50
Bromodichloromethane	ND	3.5	1	06/19/2017 20:50
Bromoform	ND	5.2	1	06/19/2017 20:50
Bromomethane	ND	2.0	1	06/19/2017 20:50
1,3-Butadiene	ND	1.1	1	06/19/2017 20:50
2-Butanone (MEK)	ND	75	1	06/19/2017 20:50
t-Butyl alcohol (TBA)	ND	31	1	06/19/2017 20:50
Carbon Disulfide	2.3	1.6	1	06/19/2017 20:50
Carbon Tetrachloride	ND	3.2	1	06/19/2017 20:50
Chlorobenzene	ND	2.4	1	06/19/2017 20:50
Chloroethane	ND	1.3	1	06/19/2017 20:50
Chloroform	ND	2.4	1	06/19/2017 20:50
Chloromethane	ND	1.0	1	06/19/2017 20:50
Cyclohexane	ND	18	1	06/19/2017 20:50
Dibromochloromethane	ND	4.4	1	06/19/2017 20:50
1,2-Dibromo-3-chloropropane	ND	0.12	1	06/19/2017 20:50
1,2-Dibromoethane (EDB)	ND	3.9	1	06/19/2017 20:50
1,2-Dichlorobenzene	ND	3.0	1	06/19/2017 20:50
1,3-Dichlorobenzene	ND	3.0	1	06/19/2017 20:50
1,4-Dichlorobenzene	ND	3.0	1	06/19/2017 20:50
Dichlorodifluoromethane	ND	2.5	1	06/19/2017 20:50
1,1-Dichloroethane	ND	2.0	1	06/19/2017 20:50
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	06/19/2017 20:50
1,1-Dichloroethene	ND	2.0	1	06/19/2017 20:50
cis-1,2-Dichloroethene	ND	2.0	1	06/19/2017 20:50
trans-1,2-Dichloroethene	ND	2.0	1	06/19/2017 20:50
1,2-Dichloropropane	ND	2.4	1	06/19/2017 20:50
cis-1,3-Dichloropropene	ND	2.3	1	06/19/2017 20:50

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Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	2.3	1	06/19/2017 20:50
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	06/19/2017 20:50
Diisopropyl ether (DIPE)	ND	2.1	1	06/19/2017 20:50
1,4-Dioxane	ND	1.8	1	06/19/2017 20:50
Ethanol	ND	96	1	06/19/2017 20:50
Ethyl acetate	8.8	1.8	1	06/19/2017 20:50
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	06/19/2017 20:50
Ethylbenzene	ND	2.2	1	06/19/2017 20:50
4-Ethyltoluene	ND	2.5	1	06/19/2017 20:50
Freon 113	ND	3.9	1	06/19/2017 20:50
Heptane	ND	21	1	06/19/2017 20:50
Hexachlorobutadiene	ND	5.4	1	06/19/2017 20:50
Hexane	24	18	1	06/19/2017 20:50
2-Hexanone	ND	2.1	1	06/19/2017 20:50
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	06/19/2017 20:50
Methyl-t-butyl ether (MTBE)	ND	1.8	1	06/19/2017 20:50
Methylene chloride	ND	8.8	1	06/19/2017 20:50
Methyl methacrylate	ND	2.1	1	06/19/2017 20:50
Naphthalene	ND	5.3	1	06/19/2017 20:50
Propene	ND	88	1	06/19/2017 20:50
Styrene	ND	2.2	1	06/19/2017 20:50
1,1,1,2-Tetrachloroethane	ND	3.5	1	06/19/2017 20:50
1,1,2,2-Tetrachloroethane	ND	3.5	1	06/19/2017 20:50
Tetrachloroethene	ND	3.4	1	06/19/2017 20:50
Tetrahydrofuran	ND	3.0	1	06/19/2017 20:50
Toluene	3.4	1.9	1	06/19/2017 20:50
1,2,4-Trichlorobenzene	ND	3.8	1	06/19/2017 20:50
1,1,1-Trichloroethane	ND	2.8	1	06/19/2017 20:50
1,1,2-Trichloroethane	ND	2.8	1	06/19/2017 20:50
Trichloroethene	ND	2.8	1	06/19/2017 20:50
Trichlorofluoromethane	ND	2.8	1	06/19/2017 20:50
1,2,4-Trimethylbenzene	ND	2.5	1	06/19/2017 20:50
1,3,5-Trimethylbenzene	ND	2.5	1	06/19/2017 20:50

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10	1706489-002A	SoilGas	06/07/2017 18:11	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.82	25.65	AK

Analytes	Result	RL	DF	Date Analyzed
Vinyl Acetate	ND	18	1	06/19/2017 20:50
Vinyl Chloride	ND	1.3	1	06/19/2017 20:50
Xylenes, Total	ND	6.6	1	06/19/2017 20:50

Surrogates	REC (%)	Limits	Date Analyzed
1,2-DCA-d4	84	70-130	06/19/2017 20:50
Toluene-d8	96	70-130	06/19/2017 20:50
4-BFB	91	70-130	06/19/2017 20:50



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
Acetone	110	60	1	06/19/2017 22:09
Acrolein	ND	5.8	1	06/19/2017 22:09
Acrylonitrile	ND	1.1	1	06/19/2017 22:09
tert-Amyl methyl ether (TAME)	ND	2.1	1	06/19/2017 22:09
Benzene	19	1.6	1	06/19/2017 22:09
Benzyl chloride	ND	2.6	1	06/19/2017 22:09
Bromodichloromethane	ND	3.5	1	06/19/2017 22:09
Bromoform	ND	5.2	1	06/19/2017 22:09
Bromomethane	9.6	2.0	1	06/19/2017 22:09
1,3-Butadiene	ND	1.1	1	06/19/2017 22:09
2-Butanone (MEK)	ND	75	1	06/19/2017 22:09
t-Butyl alcohol (TBA)	41	31	1	06/19/2017 22:09
Carbon Disulfide	33	1.6	1	06/19/2017 22:09
Carbon Tetrachloride	ND	3.2	1	06/19/2017 22:09
Chlorobenzene	ND	2.4	1	06/19/2017 22:09
Chloroethane	ND	1.3	1	06/19/2017 22:09
Chloroform	ND	2.4	1	06/19/2017 22:09
Chloromethane	ND	1.0	1	06/19/2017 22:09
Cyclohexane	300	18	1	06/19/2017 22:09
Dibromochloromethane	ND	4.4	1	06/19/2017 22:09
1,2-Dibromo-3-chloropropane	ND	0.12	1	06/19/2017 22:09
1,2-Dibromoethane (EDB)	ND	3.9	1	06/19/2017 22:09
1,2-Dichlorobenzene	ND	3.0	1	06/19/2017 22:09
1,3-Dichlorobenzene	ND	3.0	1	06/19/2017 22:09
1,4-Dichlorobenzene	ND	3.0	1	06/19/2017 22:09
Dichlorodifluoromethane	3.1	2.5	1	06/19/2017 22:09
1,1-Dichloroethane	ND	2.0	1	06/19/2017 22:09
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	06/19/2017 22:09
1,1-Dichloroethene	ND	2.0	1	06/19/2017 22:09
cis-1,2-Dichloroethene	ND	2.0	1	06/19/2017 22:09
trans-1,2-Dichloroethene	ND	2.0	1	06/19/2017 22:09
1,2-Dichloropropane	ND	2.4	1	06/19/2017 22:09
cis-1,3-Dichloropropene	ND	2.3	1	06/19/2017 22:09

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
trans-1,3-Dichloropropene	ND	2.3	1	06/19/2017 22:09
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	06/19/2017 22:09
Diisopropyl ether (DIPE)	ND	2.1	1	06/19/2017 22:09
1,4-Dioxane	ND	1.8	1	06/19/2017 22:09
Ethanol	100	96	1	06/19/2017 22:09
Ethyl acetate	2.4	1.8	1	06/19/2017 22:09
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	06/19/2017 22:09
Ethylbenzene	4.8	2.2	1	06/19/2017 22:09
4-Ethyltoluene	ND	2.5	1	06/19/2017 22:09
Freon 113	ND	3.9	1	06/19/2017 22:09
Heptane	440	21	1	06/19/2017 22:09
Hexachlorobutadiene	ND	5.4	1	06/19/2017 22:09
Hexane	260	18	1	06/19/2017 22:09
2-Hexanone	ND	2.1	1	06/19/2017 22:09
4-Methyl-2-pentanone (MIBK)	3.9	2.1	1	06/19/2017 22:09
Methyl-t-butyl ether (MTBE)	ND	1.8	1	06/19/2017 22:09
Methylene chloride	ND	8.8	1	06/19/2017 22:09
Methyl methacrylate	ND	2.1	1	06/19/2017 22:09
Naphthalene	ND	5.3	1	06/19/2017 22:09
Propene	ND	88	1	06/19/2017 22:09
Styrene	ND	2.2	1	06/19/2017 22:09
1,1,1,2-Tetrachloroethane	ND	3.5	1	06/19/2017 22:09
1,1,2,2-Tetrachloroethane	ND	3.5	1	06/19/2017 22:09
Tetrachloroethene	ND	3.4	1	06/19/2017 22:09
Tetrahydrofuran	ND	3.0	1	06/19/2017 22:09
Toluene	32	1.9	1	06/19/2017 22:09
1,2,4-Trichlorobenzene	ND	3.8	1	06/19/2017 22:09
1,1,1-Trichloroethane	ND	2.8	1	06/19/2017 22:09
1,1,2-Trichloroethane	ND	2.8	1	06/19/2017 22:09
Trichloroethene	ND	2.8	1	06/19/2017 22:09
Trichlorofluoromethane	ND	2.8	1	06/19/2017 22:09
1,2,4-Trimethylbenzene	8.5	2.5	1	06/19/2017 22:09
1,3,5-Trimethylbenzene	4.1	2.5	1	06/19/2017 22:09

(Cont.)

Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/19/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10	1706489-004A	SoilGas	06/08/2017 17:02	GC24	140727

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
12.71	25.33	AK

Analytes	Result	RL	DF	Date Analyzed
Vinyl Acetate	ND	18	1	06/19/2017 22:09
Vinyl Chloride	ND	1.3	1	06/19/2017 22:09
Xylenes, Total	23	6.6	1	06/19/2017 22:09
Surrogates	REC (%)	Limits		
1,2-DCA-d4	90	70-130		06/19/2017 22:09
Toluene-d8	86	70-130		06/19/2017 22:09
4-BFB	110	70-130		06/19/2017 22:09

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

TPH-Diesel by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10 ST	1706489-003B	SoilGas	06/07/2017 18:21	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1500	1	06/14/2017 18:26

Surrogates	REC (%)	Limits	
4-BFB	81	70-130	06/14/2017 18:26

Analyst(s): KBO **Analytical Comments:** a10

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10 ST	1706489-005B	SoilGas	06/08/2017 17:13	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	7600	1100	1	06/14/2017 20:42

Surrogates	REC (%)	Limits	
4-BFB	104	70-130	06/14/2017 20:42

Analyst(s): KBO **Analytical Comments:** a10

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5 ST	1706489-006B	SoilGas	06/08/2017 19:06	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2600	1600	1	06/14/2017 22:56

Surrogates	REC (%)	Limits	
4-BFB	89	70-130	06/14/2017 22:56

Analyst(s): KBO **Analytical Comments:** a10

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10 ST	1706489-003B	SoilGas	06/07/2017 18:21	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,1,1-Trichloroethane	ND	3.1	1	06/14/2017 18:26
1,1-Dichloroethane	ND	3.1	1	06/14/2017 18:26
1,1-Dichloroethene	ND	3.1	1	06/14/2017 18:26
1,1-Dichloropropene	ND	3.1	1	06/14/2017 18:26
2,2-Dichloropropane	ND	3.1	1	06/14/2017 18:26
2-Butanone (MEK)	ND	3.1	1	06/14/2017 18:26
2-Hexanone	ND	3.1	1	06/14/2017 18:26
4-Methyl-2-pentanone (MIBK)	ND	15	1	06/14/2017 18:26
Acetone	210	150	1	06/14/2017 18:26
Bromochloromethane	ND	3.1	1	06/14/2017 18:26
Carbon Disulfide	ND	15	1	06/14/2017 18:26
Carbon Tetrachloride	ND	3.1	1	06/14/2017 18:26
Chloroform	ND	3.1	1	06/14/2017 18:26
cis-1,2-Dichloroethene	ND	3.1	1	06/14/2017 18:26
Dibromomethane	ND	3.1	1	06/14/2017 18:26
Dichlorodifluoromethane	ND	3.1	1	06/14/2017 18:26
Diisopropyl ether (DIPE)	ND	3.1	1	06/14/2017 18:26
Ethyl tert-butyl ether (ETBE)	ND	3.1	1	06/14/2017 18:26
Methylene chloride	ND	15	1	06/14/2017 18:26
n-Butyl benzene	ND	3.1	1	06/14/2017 18:26
t-Butyl alcohol (TBA)	ND	12	1	06/14/2017 18:26
tert-Amyl methyl ether (TAME)	ND	3.1	1	06/14/2017 18:26
Tetrahydrofuran	ND	3.1	1	06/14/2017 18:26
trans-1,2-Dichloroethene	ND	3.1	1	06/14/2017 18:26
Trichlorofluoromethane	ND	15	1	06/14/2017 18:26
Benzene	ND	3.1	1	06/14/2017 18:26
Bromobenzene	ND	3.1	1	06/14/2017 18:26
Bromodichloromethane	ND	3.1	1	06/14/2017 18:26
Bromoform	ND	3.1	1	06/14/2017 18:26
sec-Butyl benzene	ND	3.1	1	06/14/2017 18:26
tert-Butyl benzene	ND	3.1	1	06/14/2017 18:26
Chlorobenzene	ND	3.1	1	06/14/2017 18:26
2-Chlorotoluene	ND	3.1	1	06/14/2017 18:26
4-Chlorotoluene	ND	3.1	1	06/14/2017 18:26
Dibromochloromethane	ND	3.1	1	06/14/2017 18:26
1,2-Dibromo-3-chloropropane	ND	3.1	1	06/14/2017 18:26
1,2-Dibromoethane (EDB)	ND	3.1	1	06/14/2017 18:26

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-10 ST	1706489-003B	SoilGas	06/07/2017 18:21	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichlorobenzene	ND	3.1	1	06/14/2017 18:26
1,3-Dichlorobenzene	ND	3.1	1	06/14/2017 18:26
1,4-Dichlorobenzene	ND	3.1	1	06/14/2017 18:26
1,2-Dichloroethane (1,2-DCA)	ND	3.1	1	06/14/2017 18:26
1,2-Dichloropropane	ND	3.1	1	06/14/2017 18:26
1,3-Dichloropropane	ND	3.1	1	06/14/2017 18:26
cis-1,3-Dichloropropene	ND	3.1	1	06/14/2017 18:26
trans-1,3-Dichloropropene	ND	3.1	1	06/14/2017 18:26
Ethylbenzene	ND	3.1	1	06/14/2017 18:26
Hexachlorobutadiene	ND	3.1	1	06/14/2017 18:26
Isopropylbenzene	ND	3.1	1	06/14/2017 18:26
4-Isopropyl toluene	ND	3.1	1	06/14/2017 18:26
Methyl-t-butyl ether (MTBE)	ND	3.1	1	06/14/2017 18:26
Naphthalene	ND	3.1	1	06/14/2017 18:26
n-Propyl benzene	ND	3.1	1	06/14/2017 18:26
Styrene	ND	3.1	1	06/14/2017 18:26
1,1,1,2-Tetrachloroethane	ND	3.1	1	06/14/2017 18:26
1,1,2,2-Tetrachloroethane	ND	3.1	1	06/14/2017 18:26
Tetrachloroethene	ND	3.1	1	06/14/2017 18:26
Toluene	ND	3.1	1	06/14/2017 18:26
1,2,3-Trichlorobenzene	ND	3.1	1	06/14/2017 18:26
1,2,4-Trichlorobenzene	ND	3.1	1	06/14/2017 18:26
1,1,2-Trichloroethane	ND	3.1	1	06/14/2017 18:26
Trichloroethene	ND	3.1	1	06/14/2017 18:26
1,2,3-Trichloropropane	ND	3.1	1	06/14/2017 18:26
1,2,4-Trimethylbenzene	ND	3.1	1	06/14/2017 18:26
1,3,5-Trimethylbenzene	ND	3.1	1	06/14/2017 18:26
Xylenes, Total	ND	9.2	1	06/14/2017 18:26
Surrogates	REC (%)	Limits		
1,2-DCA-d4	107	70-130		06/14/2017 18:26
toluene-d8	99	70-130		06/14/2017 18:26
4-BFB	95	70-130		06/14/2017 18:26

Analyst(s): KBO

Analytical Comments: a10

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10 ST	1706489-005B	SoilGas	06/08/2017 17:13	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,1,1-Trichloroethane	ND	2.2	1	06/14/2017 20:42
1,1-Dichloroethane	ND	2.2	1	06/14/2017 20:42
1,1-Dichloroethene	ND	2.2	1	06/14/2017 20:42
1,1-Dichloropropene	ND	2.2	1	06/14/2017 20:42
2,2-Dichloropropane	ND	2.2	1	06/14/2017 20:42
2-Butanone (MEK)	ND	2.2	1	06/14/2017 20:42
2-Hexanone	ND	2.2	1	06/14/2017 20:42
4-Methyl-2-pentanone (MIBK)	ND	11	1	06/14/2017 20:42
Acetone	130	110	1	06/14/2017 20:42
Bromochloromethane	ND	2.2	1	06/14/2017 20:42
Carbon Disulfide	16	11	1	06/14/2017 20:42
Carbon Tetrachloride	2.5	2.2	1	06/14/2017 20:42
Chloroform	ND	2.2	1	06/14/2017 20:42
cis-1,2-Dichloroethene	ND	2.2	1	06/14/2017 20:42
Dibromomethane	ND	2.2	1	06/14/2017 20:42
Dichlorodifluoromethane	ND	2.2	1	06/14/2017 20:42
Diisopropyl ether (DIPE)	ND	2.2	1	06/14/2017 20:42
Ethyl tert-butyl ether (ETBE)	ND	2.2	1	06/14/2017 20:42
Methylene chloride	ND	11	1	06/14/2017 20:42
n-Butyl benzene	ND	2.2	1	06/14/2017 20:42
t-Butyl alcohol (TBA)	ND	8.9	1	06/14/2017 20:42
tert-Amyl methyl ether (TAME)	ND	2.2	1	06/14/2017 20:42
Tetrahydrofuran	ND	2.2	1	06/14/2017 20:42
trans-1,2-Dichloroethene	ND	2.2	1	06/14/2017 20:42
Trichlorofluoromethane	ND	11	1	06/14/2017 20:42
Benzene	23	2.2	1	06/14/2017 20:42
Bromobenzene	ND	2.2	1	06/14/2017 20:42
Bromodichloromethane	ND	2.2	1	06/14/2017 20:42
Bromoform	ND	2.2	1	06/14/2017 20:42
sec-Butyl benzene	ND	2.2	1	06/14/2017 20:42
tert-Butyl benzene	ND	2.2	1	06/14/2017 20:42
Chlorobenzene	ND	2.2	1	06/14/2017 20:42
2-Chlorotoluene	ND	2.2	1	06/14/2017 20:42
4-Chlorotoluene	ND	2.2	1	06/14/2017 20:42
Dibromochloromethane	ND	2.2	1	06/14/2017 20:42
1,2-Dibromo-3-chloropropane	ND	2.2	1	06/14/2017 20:42
1,2-Dibromoethane (EDB)	ND	2.2	1	06/14/2017 20:42

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV46-10 ST	1706489-005B	SoilGas	06/08/2017 17:13	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.2	1	06/14/2017 20:42
1,3-Dichlorobenzene	ND	2.2	1	06/14/2017 20:42
1,4-Dichlorobenzene	ND	2.2	1	06/14/2017 20:42
1,2-Dichloroethane (1,2-DCA)	ND	2.2	1	06/14/2017 20:42
1,2-Dichloropropane	ND	2.2	1	06/14/2017 20:42
1,3-Dichloropropane	ND	2.2	1	06/14/2017 20:42
cis-1,3-Dichloropropene	ND	2.2	1	06/14/2017 20:42
trans-1,3-Dichloropropene	ND	2.2	1	06/14/2017 20:42
Ethylbenzene	6.4	2.2	1	06/14/2017 20:42
Hexachlorobutadiene	ND	2.2	1	06/14/2017 20:42
Isopropylbenzene	ND	2.2	1	06/14/2017 20:42
4-Isopropyl toluene	2.5	2.2	1	06/14/2017 20:42
Methyl-t-butyl ether (MTBE)	ND	2.2	1	06/14/2017 20:42
Naphthalene	ND	2.2	1	06/14/2017 20:42
n-Propyl benzene	ND	2.2	1	06/14/2017 20:42
Styrene	ND	2.2	1	06/14/2017 20:42
1,1,1,2-Tetrachloroethane	ND	2.2	1	06/14/2017 20:42
1,1,2,2-Tetrachloroethane	ND	2.2	1	06/14/2017 20:42
Tetrachloroethene	ND	2.2	1	06/14/2017 20:42
Toluene	31	2.2	1	06/14/2017 20:42
1,2,3-Trichlorobenzene	ND	2.2	1	06/14/2017 20:42
1,2,4-Trichlorobenzene	ND	2.2	1	06/14/2017 20:42
1,1,2-Trichloroethane	ND	2.2	1	06/14/2017 20:42
Trichloroethene	ND	2.2	1	06/14/2017 20:42
1,2,3-Trichloropropane	ND	2.2	1	06/14/2017 20:42
1,2,4-Trimethylbenzene	8.5	2.2	1	06/14/2017 20:42
1,3,5-Trimethylbenzene	3.8	2.2	1	06/14/2017 20:42
Xylenes, Total	30	6.7	1	06/14/2017 20:42
Surrogates	REC (%)	Limits		
1,2-DCA-d4	106	70-130		06/14/2017 20:42
toluene-d8	118	70-130		06/14/2017 20:42
4-BFB	126	70-130		06/14/2017 20:42

Analyst(s): KBO

Analytical Comments: a10

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5 ST	1706489-006B	SoilGas	06/08/2017 19:06	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,1,1-Trichloroethane	5.4	3.2	1	06/14/2017 22:56
1,1-Dichloroethane	ND	3.2	1	06/14/2017 22:56
1,1-Dichloroethene	ND	3.2	1	06/14/2017 22:56
1,1-Dichloropropene	ND	3.2	1	06/14/2017 22:56
2,2-Dichloropropane	ND	3.2	1	06/14/2017 22:56
2-Butanone (MEK)	16	13	1	06/14/2017 22:56
2-Hexanone	ND	3.2	1	06/14/2017 22:56
4-Methyl-2-pentanone (MIBK)	ND	16	1	06/14/2017 22:56
Acetone	350	160	1	06/14/2017 22:56
Bromochloromethane	ND	3.2	1	06/14/2017 22:56
Carbon Disulfide	270	16	1	06/14/2017 22:56
Carbon Tetrachloride	ND	3.2	1	06/14/2017 22:56
Chloroform	11	3.2	1	06/14/2017 22:56
cis-1,2-Dichloroethene	ND	3.2	1	06/14/2017 22:56
Dibromomethane	ND	3.2	1	06/14/2017 22:56
Dichlorodifluoromethane	ND	3.2	1	06/14/2017 22:56
Diisopropyl ether (DIPE)	ND	3.2	1	06/14/2017 22:56
Ethyl tert-butyl ether (ETBE)	ND	3.2	1	06/14/2017 22:56
Methylene chloride	ND	16	1	06/14/2017 22:56
n-Butyl benzene	ND	3.2	1	06/14/2017 22:56
t-Butyl alcohol (TBA)	ND	13	1	06/14/2017 22:56
tert-Amyl methyl ether (TAME)	ND	3.2	1	06/14/2017 22:56
Tetrahydrofuran	ND	3.2	1	06/14/2017 22:56
trans-1,2-Dichloroethene	ND	3.2	1	06/14/2017 22:56
Trichlorofluoromethane	64	16	1	06/14/2017 22:56
Benzene	150	3.2	1	06/14/2017 22:56
Bromobenzene	ND	3.2	1	06/14/2017 22:56
Bromodichloromethane	ND	3.2	1	06/14/2017 22:56
Bromoform	ND	3.2	1	06/14/2017 22:56
sec-Butyl benzene	ND	3.2	1	06/14/2017 22:56
tert-Butyl benzene	ND	3.2	1	06/14/2017 22:56
Chlorobenzene	ND	3.2	1	06/14/2017 22:56
2-Chlorotoluene	ND	3.2	1	06/14/2017 22:56
4-Chlorotoluene	ND	3.2	1	06/14/2017 22:56
Dibromochloromethane	ND	3.2	1	06/14/2017 22:56
1,2-Dibromo-3-chloropropane	ND	3.2	1	06/14/2017 22:56
1,2-Dibromoethane (EDB)	ND	3.2	1	06/14/2017 22:56

(Cont.)

 Angela Rydelius, Lab Manager



Analytical Report

Client: CKG Environmental
Date Received: 6/9/17 16:30
Date Prepared: 6/14/17
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³

Volatile Organic Compounds by TO17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SV47-5 ST	1706489-006B	SoilGas	06/08/2017 19:06	GC37	140503

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichlorobenzene	ND	3.2	1	06/14/2017 22:56
1,3-Dichlorobenzene	ND	3.2	1	06/14/2017 22:56
1,4-Dichlorobenzene	ND	3.2	1	06/14/2017 22:56
1,2-Dichloroethane (1,2-DCA)	ND	3.2	1	06/14/2017 22:56
1,2-Dichloropropane	ND	3.2	1	06/14/2017 22:56
1,3-Dichloropropane	ND	3.2	1	06/14/2017 22:56
cis-1,3-Dichloropropene	ND	3.2	1	06/14/2017 22:56
trans-1,3-Dichloropropene	ND	3.2	1	06/14/2017 22:56
Ethylbenzene	15	3.2	1	06/14/2017 22:56
Hexachlorobutadiene	ND	3.2	1	06/14/2017 22:56
Isopropylbenzene	ND	3.2	1	06/14/2017 22:56
4-Isopropyl toluene	4.8	3.2	1	06/14/2017 22:56
Methyl-t-butyl ether (MTBE)	ND	3.2	1	06/14/2017 22:56
Naphthalene	ND	3.2	1	06/14/2017 22:56
n-Propyl benzene	ND	3.2	1	06/14/2017 22:56
Styrene	ND	3.2	1	06/14/2017 22:56
1,1,1,2-Tetrachloroethane	ND	3.2	1	06/14/2017 22:56
1,1,2,2-Tetrachloroethane	ND	3.2	1	06/14/2017 22:56
Tetrachloroethene	19	3.2	1	06/14/2017 22:56
Toluene	73	3.2	1	06/14/2017 22:56
1,2,3-Trichlorobenzene	ND	3.2	1	06/14/2017 22:56
1,2,4-Trichlorobenzene	ND	3.2	1	06/14/2017 22:56
1,1,2-Trichloroethane	ND	3.2	1	06/14/2017 22:56
Trichloroethene	ND	3.2	1	06/14/2017 22:56
1,2,3-Trichloropropane	ND	3.2	1	06/14/2017 22:56
1,2,4-Trimethylbenzene	6.9	3.2	1	06/14/2017 22:56
1,3,5-Trimethylbenzene	3.2	3.2	1	06/14/2017 22:56
Xylenes, Total	51	9.5	1	06/14/2017 22:56
Surrogates	REC (%)	Limits		
1,2-DCA-d4	111	70-130		06/14/2017 22:56
toluene-d8	103	70-130		06/14/2017 22:56
4-BFB	106	70-130		06/14/2017 22:56

Analyst(s): KBO

Analytical Comments: a10

 Angela Rydelius, Lab Manager




Quality Control Report

Client:	CKG Environmental	WorkOrder:	1706489
Date Prepared:	6/16/17	BatchID:	140739
Date Analyzed:	6/16/17	Extraction Method:	ASTM D 1946-90
Instrument:	GC26	Analytical Method:	ASTM D 1946-90
Matrix:	SoilGas	Unit:	%
Project:	Owens Brockway Soil Vapor Investigation	Sample ID:	MB/LCS-140739

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Oxygen	ND	0.575	0.20	0.70	-	82	70-130

 QA/QC Officer




Quality Control Report

Client:	CKG Environmental	WorkOrder:	1706489
Date Prepared:	6/13/17	BatchID:	140377
Date Analyzed:	6/13/17	Extraction Method:	ASTM D 1946-90
Instrument:	GC26	Analytical Method:	ASTM D 1946-90
Matrix:	Soilgas	Unit:	%
Project:	Owens Brockway Soil Vapor Investigation	Sample ID:	MB/LCS-140377

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.0776	0.025	0.10	-	78	60-140

 QA/QC Officer



Quality Control Report

Client: CKG Environmental	WorkOrder: 1706489
Date Prepared: 6/15/17	BatchID: 140738
Date Analyzed: 6/15/17	Extraction Method: ASTM D 1946-90
Instrument: GC26	Analytical Method: ASTM D 1946-90
Matrix: SoilGas	Unit: %
Project: Owens Brockway Soil Vapor Investigation	Sample ID: MB/LCS-140738

QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	0.0118	0.0020	0.010	-	118	70-130
Methane	ND	0.00953	0.00010	0.010	-	95	70-130

QA/QC Officer



Quality Control Report

Client: CKG Environmental	WorkOrder: 1706489
Date Prepared: 6/20/17	BatchID: 140727
Date Analyzed: 6/20/17	Extraction Method: TO15
Instrument: GC24	Analytical Method: TO15
Matrix: Soilgas	Unit: µg/m ³
Project: Owens Brockway Soil Vapor Investigation	Sample ID: MB-140727

QC Summary Report for TO15

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g)	ND	360	-	-	-
Surrogate Recovery					
1,2-DCA-d4	453.9		500	91	70-130
Toluene-d8	485.5		500	97	70-130
4-BFB	485		500	97	70-130

QA/QC Officer



Quality Control Report

Client: CKG Environmental
Date Prepared: 6/19/17
Date Analyzed: 6/19/17
Instrument: GC24
Matrix: SoilGas
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
BatchID: 140727
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³
Sample ID: MB/LCS-140727

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	ND	30	60	-	89	60-140
Acrolein	ND	38.5	2.9	58.25	-	66	60-140
Acrylonitrile	ND	48.8	0.55	55	-	89	60-140
tert-Amyl methyl ether (TAME)	ND	102	1.0	105	-	97	60-140
Benzene	ND	72.2	0.80	80	-	90	60-140
Benzyl chloride	ND	152	1.3	132.5	-	115	60-140
Bromodichloromethane	ND	181	1.8	175	-	103	60-140
Bromoform	ND	303	2.6	262.5	-	115	60-140
Bromomethane	ND	116	1.0	97.5	-	119	60-140
1,3-Butadiene	ND	48.1	0.55	55	-	87	60-140
2-Butanone (MEK)	ND	ND	38	75	-	84	60-140
t-Butyl alcohol (TBA)	ND	82.4	16	77.5	-	106	60-140
Carbon Disulfide	ND	74.2	0.80	80	-	93	60-140
Carbon Tetrachloride	ND	129	1.6	160	-	81	60-140
Chlorobenzene	ND	120	1.2	117.5	-	102	60-140
Chloroethane	ND	59.3	0.65	67.5	-	88	60-140
Chloroform	ND	103	1.2	122.5	-	84	60-140
Chloromethane	ND	42.2	0.50	52.5	-	80	60-140
Cyclohexane	ND	72.9	9.0	87.5	-	83	60-140
Dibromochloromethane	ND	230	2.2	217.5	-	106	60-140
1,2-Dibromo-3-chloropropane	ND	308	0.060	245	-	126	60-140
1,2-Dibromoethane (EDB)	ND	192	2.0	195	-	98	60-140
1,2-Dichlorobenzene	ND	169	1.5	152.5	-	111	60-140
1,3-Dichlorobenzene	ND	167	1.5	152.5	-	110	60-140
1,4-Dichlorobenzene	ND	169	1.5	152.5	-	111	60-140
Dichlorodifluoromethane	ND	112	1.2	125	-	90	60-140
1,1-Dichloroethane	ND	120	1.0	102.5	-	117	60-140
1,2-Dichloroethane (1,2-DCA)	ND	81.8	1.0	102.5	-	80	60-140
1,1-Dichloroethene	ND	76.6	1.0	100	-	77	60-140
cis-1,2-Dichloroethene	ND	90.5	1.0	100	-	91	60-140
trans-1,2-Dichloroethene	ND	91.1	1.0	100	-	91	60-140
1,2-Dichloropropane	ND	104	1.2	117.5	-	89	60-140
cis-1,3-Dichloropropene	ND	118	1.2	115	-	102	60-140
trans-1,3-Dichloropropene	ND	117	1.2	115	-	102	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	159	1.8	177.5	-	90	60-140
Diisopropyl ether (DIPE)	ND	88.7	1.0	105	-	84	60-140
1,4-Dioxane	ND	102	0.90	92.5	-	110	60-140

(Cont.)

 QA/QC Officer



Quality Control Report

Client: CKG Environmental
Date Prepared: 6/19/17
Date Analyzed: 6/19/17
Instrument: GC24
Matrix: SoilGas
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
BatchID: 140727
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³
Sample ID: MB/LCS-140727

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethanol	ND	ND	48	47.5	-	83	60-140
Ethyl acetate	ND	78.7	0.90	92.5	-	85	60-140
Ethyl tert-butyl ether (ETBE)	ND	92.1	1.0	105	-	88	60-140
Ethylbenzene	ND	112	1.1	110	-	101	60-140
4-Ethyltoluene	ND	134	1.2	125	-	107	60-140
Freon 113	ND	180	2.0	195	-	92	60-140
Heptane	ND	92.6	10	105	-	88	60-140
Hexachlorobutadiene	ND	321	2.7	270	-	119	60-140
Hexane	ND	73.6	9.0	90	-	82	60-140
2-Hexanone	ND	140	1.0	105	-	133	60-140
Isopropyl Alcohol	ND	55.7	25	62.5	-	89	60-140
4-Methyl-2-pentanone (MIBK)	ND	96.1	1.0	105	-	92	60-140
Methyl-t-butyl ether (MTBE)	ND	84.4	0.90	92.5	-	91	60-140
Methylene chloride	ND	79.1	4.4	87.5	-	90	60-140
Methyl methacrylate	ND	100	1.0	104	-	97	60-140
Naphthalene	ND	360	2.6	265	-	136	60-140
Propene	ND	ND	44	42.5	-	88	60-140
Styrene	ND	114	1.1	107.5	-	106	60-140
1,1,1,2-Tetrachloroethane	ND	176	1.8	175	-	100	60-140
1,1,2,2-Tetrachloroethane	ND	173	1.8	175	-	99	60-140
Tetrachloroethene	ND	171	1.7	172	-	99	60-140
Tetrahydrofuran	ND	60.5	1.5	75	-	81	60-140
Toluene	ND	92.9	0.95	95	-	98	60-140
1,2,4-Trichlorobenzene	ND	231	1.9	187.5	-	123	60-140
1,1,1-Trichloroethane	ND	156	1.4	137.5	-	113	60-140
1,1,2-Trichloroethane	ND	128	1.4	137.5	-	93	60-140
Trichloroethene	ND	141	1.4	137.5	-	102	60-140
Trichlorofluoromethane	ND	128	1.4	142.5	-	90	60-140
1,2,4-Trimethylbenzene	ND	138	1.2	125	-	110	60-140
1,3,5-Trimethylbenzene	ND	137	1.2	125	-	110	60-140
Vinyl Acetate	ND	120	9.0	90	-	133	60-140
Vinyl Chloride	ND	58.1	0.65	65	-	89	60-140
Xylenes, Total	ND	309	3.3	330	-	94	60-140

(Cont.)

QA/QC Officer




Quality Control Report

Client:	CKG Environmental	WorkOrder:	1706489
Date Prepared:	6/19/17	BatchID:	140727
Date Analyzed:	6/19/17	Extraction Method:	TO15
Instrument:	GC24	Analytical Method:	TO15
Matrix:	SoilGas	Unit:	µg/m ³
Project:	Owens Brockway Soil Vapor Investigation	Sample ID:	MB/LCS-140727

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
1,2-DCA-d4	429.8	418		500	86	84	70-130
Toluene-d8	485.4	489		500	97	98	70-130
4-BFB	477.3	504		500	95	101	70-130

 QA/QC Officer



Quality Control Report

Client:	CKG Environmental	WorkOrder:	1706489
Date Prepared:	6/14/17	BatchID:	140503
Date Analyzed:	6/14/17	Extraction Method:	TO17
Instrument:	GC37	Analytical Method:	TO17
Matrix:	Sorbent Tube	Unit:	µg/m ³
Project:	Owens Brockway Soil Vapor Investigation	Sample ID:	MB/LCS-140503

QC Summary Report for TPH-Diesel by TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	9510	1000	10000	-	95	60-140
Surrogate Recovery							
4-BFB	83.7	91.3		100	84	91	60-140

QA/QC Officer



Quality Control Report

Client: CKG Environmental
Date Prepared: 6/14/17
Date Analyzed: 6/14/17
Instrument: GC37
Matrix: Sorbent Tube
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
BatchID: 140503
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³
Sample ID: MB/LCS-140503

QC Summary Report for VOCs by TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1,1-Trichloroethane	ND	54.5	2.0	50	-	109	60-140
1,1-Dichloroethane	ND	62.1	2.0	50	-	124	60-140
1,1-Dichloroethene	ND	56.9	2.0	50	-	114	60-140
1,1-Dichloropropene	ND	50.3	2.0	50	-	101	60-140
2,2-Dichloropropane	ND	66.5	2.0	50	-	133	60-140
2-Butanone (MEK)	ND	244	8.0	200	-	122	60-140
2-Hexanone	ND	54.5	2.0	50	-	109	60-140
4-Methyl-2-pentanone (MIBK)	ND	56.6	2.0	50	-	113	60-140
Acetone	ND	1270	20	1000	-	127	60-140
Bromochloromethane	ND	50.7	2.0	50	-	101	60-140
Carbon Disulfide	ND	62.6	2.0	50	-	125	60-140
Carbon Tetrachloride	ND	52.2	2.0	50	-	104	60-140
Chloroform	ND	52.9	2.0	50	-	106	60-140
cis-1,2-Dichloroethene	ND	60.1	2.0	50	-	120	60-140
Dibromomethane	ND	51.0	2.0	50	-	102	60-140
Dichlorodifluoromethane	ND	66.1	2.0	50	-	132	60-140
Diisopropyl ether (DIPE)	ND	56.1	2.0	50	-	112	60-140
Ethyl tert-butyl ether (ETBE)	ND	66.9	2.0	50	-	134	60-140
Methylene chloride	ND	61.6	2.0	50	-	123	60-140
n-Butyl benzene	ND	48.4	2.0	50	-	97	60-140
t-Butyl alcohol (TBA)	ND	252	8.0	200	-	126	60-140
tert-Amyl methyl ether (TAME)	ND	61.6	2.0	50	-	123	60-140
Tetrahydrofuran	ND	519	2.0	500	-	104	60-140
trans-1,2-Dichloroethene	ND	47.8	2.0	50	-	96	60-140
Trichlorofluoromethane	ND	51.2	2.0	50	-	102	60-140
Benzene	ND	51.3	2.0	50	-	103	60-140
Bromobenzene	ND	48.7	2.0	50	-	97	60-140
Bromodichloromethane	ND	49.8	2.0	50	-	100	60-140
Bromoform	ND	44.5	2.0	50	-	89	60-140
sec-Butyl benzene	ND	49.5	2.0	50	-	99	60-140
tert-Butyl benzene	ND	49.3	2.0	50	-	99	60-140
Chlorobenzene	ND	47.7	2.0	50	-	95	60-140
2-Chlorotoluene	ND	45.8	2.0	50	-	92	60-140
4-Chlorotoluene	ND	47.7	2.0	50	-	95	60-140
Dibromochloromethane	ND	47.3	2.0	50	-	95	60-140
1,2-Dibromo-3-chloropropane	ND	17.6	2.0	20	-	88	60-140
1,2-Dibromoethane (EDB)	ND	48.8	2.0	50	-	97	60-140

(Cont.)

QA/QC Officer



Quality Control Report

Client: CKG Environmental
Date Prepared: 6/14/17
Date Analyzed: 6/14/17
Instrument: GC37
Matrix: Sorbent Tube
Project: Owens Brockway Soil Vapor Investigation

WorkOrder: 1706489
BatchID: 140503
Extraction Method: TO17
Analytical Method: TO17
Unit: µg/m³
Sample ID: MB/LCS-140503

QC Summary Report for VOCs by TO17

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,2-Dichlorobenzene	ND	44.0	2.0	50	-	88	60-140
1,3-Dichlorobenzene	ND	44.1	2.0	50	-	88	60-140
1,4-Dichlorobenzene	ND	46.3	2.0	50	-	93	60-140
1,2-Dichloroethane (1,2-DCA)	ND	55.6	2.0	50	-	111	60-140
1,2-Dichloropropane	ND	58.7	2.0	50	-	117	60-140
1,3-Dichloropropane	ND	49.8	2.0	50	-	100	60-140
cis-1,3-Dichloropropene	ND	54.0	2.0	50	-	108	60-140
trans-1,3-Dichloropropene	ND	57.0	2.0	50	-	114	60-140
Ethylbenzene	ND	47.5	2.0	50	-	95	60-140
Hexachlorobutadiene	ND	41.4	2.0	50	-	83	60-140
Isopropylbenzene	ND	46.7	2.0	50	-	93	60-140
4-Isopropyl toluene	ND	46.5	2.0	50	-	93	60-140
Methyl-t-butyl ether (MTBE)	ND	63.7	2.0	50	-	127	60-140
Naphthalene	ND	47.4	2.0	50	-	95	60-140
n-Propyl benzene	ND	47.6	2.0	50	-	95	60-140
Styrene	ND	48.3	2.0	50	-	97	60-140
1,1,1,2-Tetrachloroethane	ND	47.0	2.0	50	-	94	60-140
1,1,2,2-Tetrachloroethane	ND	48.6	2.0	50	-	97	60-140
Tetrachloroethene	ND	43.7	2.0	50	-	87	60-140
Toluene	ND	44.4	2.0	50	-	89	60-140
1,2,3-Trichlorobenzene	ND	42.8	2.0	50	-	86	60-140
1,2,4-Trichlorobenzene	ND	43.4	2.0	50	-	87	60-140
1,1,2-Trichloroethane	ND	48.9	2.0	50	-	98	60-140
Trichloroethene	ND	46.2	2.0	50	-	92	60-140
1,2,3-Trichloropropane	ND	47.8	2.0	50	-	96	60-140
1,2,4-Trimethylbenzene	ND	47.4	2.0	50	-	95	60-140
1,3,5-Trimethylbenzene	ND	48.3	2.0	50	-	97	60-140
Xylenes, Total	ND	143	6.0	150	-	95	60-140
Surrogate Recovery							
1,2-DCA-d4	107.9	113		100	108	113	70-130
toluene-d8	98.5	104		100	98	104	70-130
4-BFB	97.81	102		100	98	102	70-130

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1706489

ClientCode: CKGS

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

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

Email: ckennedy@geologist.com
cc/3rd Party:
PO:
ProjectNo: Owens Brockway Soil Vapor Investigation

Bill to:

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

Requested TAT: 5 days;

Date Received: 06/09/2017
Date Logged: 06/09/2017

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1706489-001	SV47-5	SoilGas	6/7/2017 16:32	<input type="checkbox"/>	A	A	A	A		A	A	A	A			
1706489-002	SV47-10	SoilGas	6/7/2017 18:11	<input type="checkbox"/>	A	A	A			A	A	A	A			
1706489-003	SV47-10 DUP	SoilGas	6/7/2017 18:21	<input type="checkbox"/>	A	A	A									
1706489-003	SV47-10 ST	SoilGas	6/7/2017 18:21	<input type="checkbox"/>										B	B	
1706489-004	SV46-10	SoilGas	6/8/2017 17:02	<input type="checkbox"/>	A	A	A			A	A	A	A			
1706489-005	SV46-10 DUP	SoilGas	6/8/2017 17:13	<input type="checkbox"/>	A	A	A									
1706489-005	SV46-10 ST	SoilGas	6/8/2017 17:13	<input type="checkbox"/>										B	B	
1706489-006	SV47-5 DUP	SoilGas	6/8/2017 17:13	<input type="checkbox"/>	A	A	A									
1706489-006	SV47-5 ST	SoilGas	6/8/2017 19:06	<input type="checkbox"/>										B	B	
1706489-007	Unused Sorbent Tube	SoilGas	<Not Provided>	<input type="checkbox"/>					A							A
1706489-008	Unused Summa 1	SoilGas	<Not Provided>	<input type="checkbox"/>					A							A
1706489-009	Unused Summa 2	SoilGas	<Not Provided>	<input type="checkbox"/>					A							A

Test Legend:

1	ATMOSPHERICGAS_SG(%)	2	HELIUM_LC_SOILGAS(%)	3	LG_SUMMA_SOILGAS(%)	4	PREDF REPORT
5	PRUNUSEDSUMMA	6	TO15_Scan-SIM_SOIL(UG/M3) [N]	7	TO15-8260_SOIL(UG/M3) [N]	8	TO15-8260GAS_SOIL(UG/M3)
9	TO15GAS_Scan-SIM_SOIL(UG/M3)	10	TO17DIESEL_ST(UG/M3)	11	TO17VOC_ST(UGM3)	12	UNUSED_SUMMA

Prepared by: Jena Alfaro

The following SampIDs: 001A, 002A, 004A contain testgroup TO15He+GAS_SG(ug/m3).

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: Owens Brockway Soil Vapor Investigation

Work Order: 1706489

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 6/9/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1706489-001A	SV47-5	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/7/2017 16:32	5 days		<input type="checkbox"/>			
			TO15 + Gas w/ Helium			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-002A	SV47-10	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/7/2017 18:11	5 days		<input type="checkbox"/>			
			TO15 + Gas w/ Helium			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-003A	SV47-10 DUP	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/7/2017 18:21	5 days		<input type="checkbox"/>			
			ASTM D1946-90 (Helium)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-003B	SV47-10 ST	SoilGas	TO17 (VOCs) (µg/m³)	1	Sorbent Tube	<input type="checkbox"/>	6/7/2017 18:21	5 days		<input type="checkbox"/>			
			TO17 (TPH-Diesel) (µg/m³)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-004A	SV46-10	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/8/2017 17:02	5 days		<input type="checkbox"/>			
			TO15 + Gas w/ Helium			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-005A	SV46-10 DUP	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/8/2017 17:13	5 days		<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: Owens Brockway Soil Vapor Investigation

Work Order: 1706489

Client Contact: Christina Kennedy

QC Level: LEVEL 2

Contact's Email: ckennedy@geologist.com

Comments:

Date Logged: 6/9/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1706489-005A	SV46-10 DUP	SoilGas	ASTM D1946-90 (Helium)	1	1L Summa	<input type="checkbox"/>	6/8/2017 17:13	5 days		<input type="checkbox"/>			
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-005B	SV46-10 ST	SoilGas	TO17 (VOCs) (µg/m³)	1	Sorbent Tube	<input type="checkbox"/>	6/8/2017 17:13	5 days		<input type="checkbox"/>			
			TO17 (TPH-Diesel) (µg/m³)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-006A	SV47-5 DUP	SoilGas	ASTM D1946-90 (CO, CO2, C1-C6) <Carbon Dioxide_2, Methane_4>	1	1L Summa	<input type="checkbox"/>	6/8/2017 17:13	5 days		<input type="checkbox"/>			
			ASTM D1946-90 (Helium)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			ASTM D1946-90 (N2 O2) <Oxygen>			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-006B	SV47-5 ST	SoilGas	TO17 (VOCs) (µg/m³)	1	Sorbent Tube	<input type="checkbox"/>	6/8/2017 19:06	5 days		<input type="checkbox"/>			
			TO17 (TPH-Diesel) (µg/m³)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1706489-007A	Unused Sorbent Tube	SoilGas	Unused Summa	1	Sorbent Tube	<input type="checkbox"/>	<Not Provided>	5 days		<input type="checkbox"/>			
1706489-008A	Unused Summa 1	SoilGas	Unused Summa	1	1L Summa	<input type="checkbox"/>	<Not Provided>	5 days		<input type="checkbox"/>			
1706489-009A	Unused Summa 2	SoilGas	Unused Summa	1	1L Summa	<input type="checkbox"/>	<Not Provided>	5 days		<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.



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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD <input checked="" type="checkbox"/>	Quote #
J-Flag / MDL	ESL	Cleanup Approved	Bottle Order #	
Delivery Format: PDF <input checked="" type="checkbox"/>	GeoTracker EDF <input checked="" type="checkbox"/>	EDD	Write On (DW)	EQUIS

Report To: Chris Kennedy Bill To: SAME
 Company: CKG ENVIRONMENTAL
 Email: CKKENNEDY@GEOLOGIST.COM
 Alt Email: Tele: Project Name: Oakland Process Project#: SOIL VAPOR INVESTIGATION
 Project Location: 3600 ALAMUDA AVE, OAKLAND, PO #
 Sampler Signature: [Signature]

Analysis Requested

Helium Shroud SN#
 Leak Check Default is IPA
 Notes: Please specify units if different than default: VOCs is reported in µg/m³, fixed is reported in %.

SAMPLE ID Location / Field Point	Sampling Start		End	Canister SN#	Sample Kit / Manifold #	VOCs TO-15 (µg/m ³) See Notes 5-7	8010 by TO-15 (µg/m ³)	TPH(g) (µg/m ³)	LEED: (inc. 4PCH, Formaldehyde, CO, Total VOCs)	Fixed Gas (CO ₂ , Methane, Ethane, Ethylene, Acetylene, Propane, CO) %	Fixed Gas: (O ₂ , N ₂) %	APH: Aliphatic and/or Aromatic (circle one) µg/m ³	Helium Leak Check % ASTM D1946	Leak Check (IPA, Norflorane, 1,1-difluoroethane) µg/m ³	TO-17 (PAH, TPH-D)	D1946-90 (METHANE, O ₂ , CO)	Matrix		Canister Pressure / Vacuum	
	Date	Time	Time														Soilgas	Indoor Air	Initial	Final
SV47-5	6.7.17	1626	1632	CW0896-2524	0316-1338	✓							X			X	✓		-29.5	3.5
SV47-10	6.7.17	1805	1811	5803-734	0316-763	✓							X			X	✓		-30	4.0
SV47-10 DUP / ST	6.7.17	1812	1821	1918-1901	" "								X			X	✓		-29.5	2.5
SV46-10	6.8.17	1656	1702	1924-1907	316T-1315	✓							X			X	✓		-25	-4
SV46-10 DUP / ST	6.8.17	1707	1713	6209-796	↓								X			X	✓		-23.5	-4
SV46-10	6.8.17	1707	1713	60149985	↓								X		✓	X	✓		-23.5	-4
SV47-10	6.7.17	1812	1821	60148154 1918-1901	1316-763								X			X	✓		-29.5	-2.5
SV47-5 DUP / ST	6.8.17	1829	1906	A7520-868	0316-1338								X			X	✓		-25	-6
SV47-5	6.8.17	1829	1906	G0148183	"								X		✓	X	✓		-25	-6

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	Comments / Instructions
<u>[Signature]</u> CKG ENV.	6.9.17		<u>[Signature]</u>	6/9/17	1630	



Sample Receipt Checklist

Client Name: **CKG Environmental**
 Project Name: **Owens Brockway Soil Vapor Investigation**
 WorkOrder No: **1706489** Matrix: SoilGas
 Carrier: Bernie Cummins (MAI Courier)

Date and Time Received: **6/9/2017 16:30**
 Date Logged: **6/9/2017**
 Received by: Jena Alfaro
 Logged by: Jena Alfaro

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No NA
 Sample/Temp Blank temperature Temp: 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

UCMR 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: