

PHASE II ENVIRONMENTAL SITE ASSESSMENT

**FULTON GAS WORKS
3301 WILLIAMSBURG AVENUE
RICHMOND, VIRGINIA 23223**

PREPARED FOR:

**CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES
P.O. BOX 27545
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Fulton Gas Works
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Richmond, Virginia 23223

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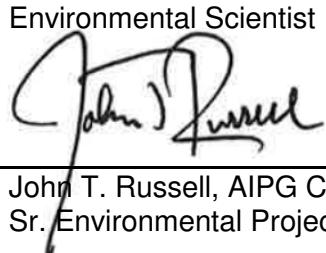

John T. Russell, AIPG CPG
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LIST OF ACRONYMS

ASTM	American Society of Materials and Testing
ASTs	aboveground storage tanks
AWS	Air Water and Soil (Laboratories)
bsg	below surface grade
DEQ	Virginia Department of Environmental Quality
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HREC	historical recognized environmental condition
MW	monitoring well
REC	recognized environmental condition
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PPL	Primary Pollutant List
PVC	polyvinyl chloride
SB	soil boring
SVOCs	semi-volatile organic compounds
TPH-DRO	total petroleum hydrocarbons – diesel range organics
TPH-ORO	total petroleum hydrocarbons – oil range organics
USGS	United States Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds
VRP	Voluntary Remediation Program

EXECUTIVE SUMMARY

Timmons Group previously completed an American Society of Testing and Materials (ASTM) Standard E 1527-13 Phase I Environmental Site Assessment (ESA) of one (1) property located at 3301 Williamsburg Avenue in the City of Richmond, Virginia (hereafter the "Subject Property", "Site", or "Subject Site"). The Phase I ESA was completed in conjunction with a current proposal for renovation and reuse by the City of Richmond.

The results of the Phase I ESA identified that the Subject Property, the former Fulton Gas Works, was a manufactured gas plant that burned coal and oil to derive volatiles (natural gas) for use as a residential and industrial fuel source. The plant produced coal gas from approximately 1856 through the 1950's. Timmons Group identified a combination of recognized environmental conditions (RECs) and historical recognized environmental conditions (HRECs) for the Subject Property as defined by ASTM Standard E 1527-13 related to the former industrial nature of the Site including: hazardous substances and/or petroleum products, storage tanks, subsurface conditions favorable to vapor migration, poly-chlorinated biphenyls (PCBs), stained soil/pavement and/or stressed vegetation, odors, and railroads. The historical usage of the Subject Property incorporated and generated hazardous substances and involved the use of petroleum products during the course of operations. Therefore, the aforementioned represent HRECs which under the current proposal translate into RECs, both of which as defined by ASTM Standards.

In addition to the RECs identified onsite, Timmons Group further identified four (4) RECs/HRECs associated with the adjoining properties along with the identified HRECs translated to represent RECs as defined by ASTM Standard E 1527-13. The identified RECs relate to the former presence of: hazardous substances and/or petroleum products, storage tanks, subsurface conditions favorable to vapor migration, and railroad easements.

Based on the above, Timmons Group recommended the completion of a Phase II ESA in accordance with ASTM Standard E 1903-11 (Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process) with a proposed scope of collecting surficial and subsurface soil samples, groundwater samples and soil gas/sub-slab vapor samples. However, following development of the proposed workscope, the determination was made to refrain from conducting a soil gas/sub-slab vapor survey until a site development plan has been more firmly established to more comprehensively evaluate the necessity of implementing engineering controls for potential vapor mitigation in conjunction with site redevelopment.

Investigative Methods

Based on the above, and within the boundaries of the Subject Property, the Phase II ESA consisted of collecting surface and subsurface soil samples for laboratory analysis from twelve (12) random locations across the Subject Property using a Geoprobe® direct-push hydraulic sampler in accordance with ASTM and industry standards. At the conclusion of soil sampling, each of the completed Geoprobe® borings was further advanced below the water table, as able, and converted to a temporary monitoring well to facilitate the collection of groundwater samples.

Soil and groundwater sampling was likewise conducted in accordance with ASTM and industry standards with analysis being completed by an accredited laboratory using approved Environmental Protection Agency (EPA) Methods. Based on the nature of the suspected contaminants, soil and groundwater samples were analyzed for parameters that included Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Priority Pollutant List (PPL) Metals, PCBs, Total Petroleum Hydrocarbons (TPH) – Diesel Range Organics (DRO), and/or TPH – Oil Range Organics (ORO).

Based on the restrictions imposed by the subsurface which included encountering boring refusal, a shallow perched water table and/or the presence of artificial fill material, complete soil volumes were not able to be collected in some instances to facilitate the full suite of analysis. Likewise, repeated soil boring refusal prohibited the installation of one (1) groundwater monitoring well. Furthermore, the detection of

free phase petroleum in six (6) of the groundwater monitoring wells negated the need to collect groundwater samples from those locations.

Analytical Results

The collected soil samples produced measureable concentrations above the EPA Region 3 Screening Level for industrial soil and/or the Virginia Department of Environmental Quality (DEQ) Voluntary Remediation Program (VRP) Tier III Screening Concentrations for restricted soil (industrial) as detailed in Appendix 2. Of the analytes measured, naphthalene was measured at the most notable concentration being approximately 35 times (x) the VRP Tier II concentration and 121x the EPA Regions 3 RSL for industrial sites. The collected groundwater samples produced measureable concentrations above the DEQ VRP Tier III Groundwater Screening Concentrations (Construction Worker in a Trench) which is also detailed in Appendix 2.

Regulatory Disposition

Based on analytical results and the detection of free phase hydrocarbons beneath the site, the Phase II ESA results should be reported to the Land Protection and Revitalization Program of the Virginia Department of Environmental Quality. Furthermore, as detailed by Section 2.11 of DEQ Guidance Document #01-2024 (Storage Tank Program Technical Manual – 4th Edition):

Former manufactured gas plants may be found in many of the cities and towns throughout the Commonwealth. During the process of manufacturing gas, tars, oils, and oily water were generated. These materials often contaminated the land and water at and near the gas manufacturing facility and are later brought to the attention of DEQ staff. Contamination from these sites poses special challenges for Storage Tank Program due to the mixture of contaminants that may be found as well as the regulatory framework within which cleanups may be conducted.

Historically, investigations and cleanups at these facilities have been overseen by DEQ Superfund and Voluntary Remediation Programs. This remains the preferred course of action as these programs are best able to affect a cleanup of all contaminants at the site. If DEQ Division of Land Protection and Revitalization determines that the cleanup at a particular former manufactured gas plant cannot be managed under the Hazardous Waste or Superfund Programs and there is no entity willing to undertake the cleanup under the Voluntary Remediation Program, DEQ Storage Tank Program may oversee cleanup of the oils and tars at these sites under Article 11 of Virginia Water Control Law. It is also possible that some or all of the cleanup of tars and oils may be administered under Article 9 of Virginia Water Control Law and the UST Technical Regulation, but the uncertainties and complex histories of these sites make this unlikely. In order to invoke Article 9 and the UST Technical Regulation, DEQ must possess or be presented with detailed historical and technical information which documents that the release of contaminants at the site came from a regulated UST and not from any other source. Appendix Y (of the guidance manual) contains DEQ Storage Tank Program White Paper that provides additional information about the Storage Tank Program's position regarding the applicability of Articles 9, 10, and 11 of Virginia Water Control Law to contaminants from former manufactured gas plants.

Conclusions

When compared to published state and federal regulatory screening levels, the measured soil and groundwater concentrations detailed by this Phase II ESA present a potential risk to human health and/or the environment for which Timmons Group prescribes notifying DEQ of all regulatory exceedances. As dictated in the DEQ Guidance Document #01-2024, the Storage Tank Program Technical Manual Section 2.11 mandates that former manufactured gas plants are to be automatically listed in the DEQ VRP with optional oversight by the DEQ Storage Tank program under Article 11 of Virginia Water Control Law. As such, DEQ will be engaged in providing guidance for contaminant remediation during property redevelopment.

1.0 INTRODUCTION

Timmons Group previously completed a Phase I ESA of the Subject Property on August 27, 2015, to satisfy due diligence requirements in conjunction with the proposed repurposing of the property. The results of the Phase I ESA identified the following RECs and HRECs for the Site with the HRECs interpreted to represent contemporary RECs.

- **Hazardous Substances and/or Petroleum Products**

Fulton Gas Works was a manufactured gas plant that burned coal and oil to derive volatiles (natural gas) for use as a residential and industrial fuel source. The plant produced coal gas from approximately 1856 through the 1950's. The passage below in conjunction with site observations presents evidence supporting the high probability of hazardous substance(s) and/or petroleum product(s) concentrations being present onsite.

As detailed by the U.S. EPA regarding manufactured gas plant sites:

Due to the immense amounts of coal which could be handled per year, manufactured gas plant sites often have very large wastewater lagoons and coal tar pits. Common waste products encountered at Superfund assessment and remediation projects include high concentrations of polynuclear aromatic hydrocarbons (PAHs), sulfur compounds, complex cyanide compounds and lower concentrations of volatile and phenolic compounds. These wastes are concentrated in a dense, aromatic coal tar and associated waste waters. This coal tar waste is typically found in large on-site pits, many of which are over 20 feet deep. The metals concentration accumulated in the ash collection system is dependent on the content of the original fuel. The most common metals include aluminum, iron, lead, nickel, and chromium. The ash may be encountered on site mixed with the coal tar or as a separate waste pile. Other inorganic compounds are not typically encountered at significant levels.

Groundwater may be contaminated as a result of leaching or percolation of surface and subsurface contaminants, surface impoundments and leaking process lines and tanks.

Additionally, contaminated buildings and the associated demolition debris may be encountered at abandoned or inactive sites. Associated heat transmission equipment may contain significant amounts of asbestos. Decontamination, asbestos remediation, and wipe testing of this material may be required prior to off-site landfill disposal or scrapping of process equipment.

Based on the above and considering the various evidence alluding to the presence of hazardous materials and/or petroleum concentrations onsite, the historical operations at Fulton Gas Works represent a REC to the Subject Property.

- **Storage Tanks**

Based on the review of historical aerial photographs and Sanborn maps, Fulton Gas Works maintained underground tar cisterns and large, vertical, cylindrical crude oil aboveground storage tanks (ASTs) from as early as 1905 until its closing in the 1950s. The ASTs have since been removed but site observations indicate that the cisterns may still be present; a partially exposed underground storage tank (UST) was observed to the east of the main collection of buildings that was open to the elements and found to be full of a petroleum-based mixture. Based on the above, the collection of tanks and former bulk storage of petroleum products on the Subject Property represents a REC.

- **Vapor Migration**

The previous/historical storage of petroleum and coal tar on the Subject Property denotes a contemporary source for subsurface vapors that, under the influence of topographic and/or hydraulic

gradients, has the potential to migrate across the Subject Property and onto adjoining properties. Accordingly, the contemporary potential for vapor migration resulting from the historic presence of petroleum and coal tar represents a REC.

- Polychlorinated Biphenyls (PCBs)

A cluster of three (3) electrical transformers is mounted on a single utility pole in the central area of the Subject Property. The transformers are not labeled with non-PCB placards and are in fair to poor condition but have been disconnected from usage. Based on their suspected age, condition, and likely construction details, the transformers represent a potential REC to the Subject Property.

Based on the age and nature of the mechanical equipment utilized over the course of facility operation as a coal gas manufacturing plant, the usage of PCB fluids is suspected which represents a potential REC to the Subject Property.

- Stained Soil/Pavement and/or Stressed Vegetation

Stained soil and stressed vegetation are present in the southeastern area of the Subject Property which is downgradient from the main buildings of Fulton Gas Works. The staining and stressed vegetation in combination with the detection of odors, as described below, represents a REC.

- Odors

The area of stained soils and stressed vegetation located in the southeastern area of the property was noted to be generating a strong petroleum-like odor. The odor, in combination with the previously described staining and stressed vegetation, represents a REC.

- Railroads

Railroad tracks do not presently transect the Subject Property. However, based on review of historical aerial photographs and Sanborn maps, a feeder line to a series of railroad spurs historically entered the Subject Property from the main line along the northern boundary and circled around to the southern area of the Site. Railroad tracks are historically suspect sources of environmental impact based on the previous burning of coal as a fuel source and the associated particulate fallout which commonly contains elevated concentrations of heavy metals. Accordingly, the potential exists for heavy metal concentrations to be prevalent in the surficial soils onsite. As a result, the former presence of railroad tracks across the Subject Property represents a REC.

As a result of site reconnaissance and reviewing resource materials, the following environmental concerns were observed on the adjoining properties:

- Hazardous Substances and/or Petroleum Products

No overt evidence of hazardous substances and/or petroleum products was observed on the adjoining properties during the site inspection; however, as indicated by reviewed resource data, the northern and eastern adjoining properties were previously improved for industrial uses from the late 19th Century through the 1970's which included the above ground bulk storage of petroleum in excess of 2-million gallons. Overall, the historical industrial nature of the northern and eastern adjoining properties represents a potential HREC which translates to a contemporary REC.

Currently, Newton's Bus Service which is located north-adjacent and at a higher elevation maintains two (2) ASTs with individual volumes estimated in excess of 5,000 gallons that are suspected to be used for petroleum storage. A catastrophic release from either of these tanks would have the potential to impact the northern extent of the Subject Property; accordingly, these tanks represent a potential REC.

- Storage Tanks

As previously stated, the two (2) bulk petroleum ASTs located on the northern adjoining Newton's Bus Service facility represent a potential REC.

- **Vapor Migration**
Although minimal evidence was observed as a result of the site reconnaissance, the recorded historic presence of hazardous materials and/or petroleum products on the northern and eastern adjoining properties denote a contemporary source for subsurface vapors that, under the influence of topographic and/or hydraulic gradients, have the potential to migrate onto and across the Subject Property. Accordingly, the contemporary potential for vapor migration resulting from the historic presence of hazardous materials on the adjoining properties represents a REC.
- **Railroads**
An active railroad trestle comprised of two (2) sets of tracks currently extends northwest-southeast along the western boundary of the Subject Property. Likewise, a single-track line extends along the northern boundary of the Subject Property that crosses Williamsburg Avenue and a former elevated railroad spur extended along the eastern property boundary. Railroad tracks are historically suspect sources of environmental impact based on the previous burning of coal as a fuel source and the associated particulate fallout which commonly contains elevated concentrations of heavy metals. Accordingly, the potential exists for heavy metal concentrations to be prevalent in the surficial soils onsite. As a result, the potential generation of fugitive dust during the redevelopment of the Subject Property represents a REC.

Based on the RECs/HRECs detailed above, Timmons Group recommended the completion of a Phase II ESA to evaluate the subsurface environmental conditions beneath the Subject Property relative to the potential effects imposed by the onsite and proximal RECs/HRECs. Timmons Group additionally recommended the completion of a soil gas survey to evaluate the necessity of mitigating potential vapor risks to the currently proposed usage through the design and implementation of engineering controls.

1.1 Purpose and Scope of Services

As a result of the usage history of the Subject Property, the completion of an ASTM Standard E 1903-11 Phase II ESA was recommended to evaluate the presence of associated subsurface impact that could inhibit the current proposal for property repurposing. To a lesser degree, the scope of services for completing the Phase II ESA also included assessing the potential subsurface impact of the property from offsite sources.

Based on the above, and within the boundaries of the Subject Property, the Phase II ESA consisted of collecting surface and subsurface soil samples for laboratory analysis from twelve (12) random locations across the Subject Property using a Geoprobe® direct-push hydraulic sampler in accordance with ASTM and industry standards. At the conclusion of soil sampling, each of the completed Geoprobe® borings was further advanced below the water table, as able, and converted to a temporary monitoring well to facilitate the collection of groundwater samples.

Soil and groundwater sampling was likewise conducted in accordance with ASTM and industry standards with analysis being completed by Air Water and Soil Laboratories, Inc. (AWS) of Richmond, Virginia using approved Environmental Protection Agency (EPA) Methods. Based on the nature of the suspected contaminants, soil and groundwater samples were analyzed for parameters that included VOCs, SVOCs, PPL Metals, PCBs, TPH-DRO, and TPH-ORO.

1.2 Limitations

This report was prepared solely for the use of the City of Richmond in accordance with the agreed upon scope of services. Any conclusions provided in this report are based only on the information contained within this document. Additional information with respect to this site or nearby sites, which was not available at the time this assessment was prepared, could modify the conclusions stated herein. This report has been prepared in general accordance with ASTM standards; no other warranty, expressed or implied, is made as to the professional advice provided under the terms of the agreement between the City of Richmond and Timmons Group.

This Phase II ESA was completed in general accordance with all applicable ASTM and industry standards for the collection of samples. However, it should be noted that the collected samples analyzed for this investigation represent isolated data points within and near the boundaries of the Subject Property and should not be considered to represent homogeneous subsurface conditions across the entire property.

The selection of sampling locations was based on a random determination of high probability areas of potential environmental impact as reflected by the locations of suspect source areas and the physical setting of the Subject Site.

Based on the restrictions imposed by the subsurface which included encountering boring refusal, a shallow perched water table and/or the presence of artificial fill material, complete soil volumes were not able to be collected in some instances to facilitate the full suite of analyses. Likewise, repeated soil boring refusal prohibited the installation of one (1) groundwater monitoring well. Furthermore, the detection of free phase petroleum in six (6) of the groundwater monitoring wells negated the need to collect groundwater samples from those locations.

2.0 SITE AND VICINITY DESCRIPTION

2.1 General Site Description

The Subject Property is comprised of one (1) parcel encompassing approximately 7.9 acres located at 3301 Williamsburg Avenue in the City of Richmond, Virginia in an urban setting (Appendix 1). The Site is currently a former coal gasification plant; however, a proposal has been formulated for renovation and reuse of the Site by the City of Richmond.

2.2 Site Utilities

To the best of understanding, the Subject Property is not currently connected to active public utilities. According to City of Richmond Department of Public Utilities (DPU) mapping, municipal service mains for various utilities extend beneath or alongside the peripheral roadways from which inactive/disconnected service lines are suspected of extending onto the Subject Property.

2.3 Physical Setting

2.3.1 Topography

According to the 1994 U.S. Geological Survey (USGS) 7.5 Minute topographic map for the Richmond, Virginia Quadrangle and visual observations, the topography of the Subject Property is relatively flat with a slight gradient to the south and an average elevation of approximately 20 feet above mean sea level (Appendix 1).

2.3.2 Geology

As illustrated by the Geologic Map of Virginia, the Subject Site is located in the Coastal Plain Physiographic Province in close proximity to the Fall Line which is the boundary separating the Coastal Plain Province from the westward Piedmont Physiographic Province. In general, the Coastal Plain is underlain by a wedge of unconsolidated to semi-consolidated, predominantly clastic sedimentary rocks that consist of mostly sand, silt and clay with lesser amounts of gravel and limestone. Coastal plain formations thicken seaward from a feather edge at their updip limit along the Fall Line, where they overlie older metamorphic, igneous, and consolidated sedimentary rocks of the Piedmont Province, and attain thicknesses ranging from approximately 3,500 to 6,500 feet along the coast (Meisler and Miller, 1988).

According to the Geologic Map of Virginia (1993), the Subject Property is underlain by Lower Tertiary Deposits as described below:

Lower Tertiary Deposits: glauconitic sand and clay-silt, shelly in part, minor sandy limestone and limey sand.

At depth, the Subject Site is further underlain by the Petersburg Granite of the Piedmont Physiographic Province which is generally described as pink to blue faintly foliated coarse grained granite with a high relative hardness.

2.3.3 Hydrology

The 1994 USGS 7.5 Minute topographic map for the Richmond, Virginia Quadrangle was reviewed to extrapolate groundwater characteristics in the area of the Subject Property. As a result, groundwater is determined to flow to the south and west under the influence of the James River which is located approximately 600 feet west of the Subject Property. As the Site is located below the rapids in downtown Richmond, groundwater flow may also be affected by the tidal influence on the lower James River.

Gillies Creek, which borders the Subject Property to the south and west, offers no effect to groundwater flow since the stream channel is lined with concrete.

3.0 SAMPLING PROCEDURES

Timmons Group was onsite December 7-8, 2015 to advance twelve (12) Geoprobe® borings into the subsurface across the site to facilitate the collection of soil and groundwater samples in accordance with Phase II ESA completion.

3.1 Soil Sampling

Twelve (12) Geoprobe® soil boring locations were selected to facilitate evaluation of subsurface impact from potential onsite and offsite sources.

Sampling activity was completed in accordance with the following protocol using a two (2) inch diameter by five (5) foot long continuous Geoprobe® Macro-Core® sampler:

Prior to advancement into the subsurface, the Macro-Core® sampler is washed in an Alconox® solution and rinsed with clean water after which a new acetate liner is inserted into the sampler. The sampler is then positioned beneath the drive head of the Geoprobe® and advanced into the subsurface to the desired depth. Upon attaining the desired depth, the Macro-Core® sampler is withdrawn from the subsurface for sample retrieval. Following recovery from the subsurface, the cutting shoe is unthreaded from the Macro-Core® sampler and the filled acetate liner separated from the cutting shoe. The acetate liner is then opened to enable access to the collected soil sample.

Upon accessing the collected samples, site personnel inspected the soils, noting the physical properties of the material and visually identifying the presence of any suspect environmental contamination.

Soil sampling was conducted in accordance with the following protocol:

Each soil sample retained for laboratory analysis is packed into an appropriate laboratory cleansed jar and sealed with a Teflon-lined lid. Following collection, the soil samples are packed in an ice-filled cooler for preservation and delivery to the laboratory.

During the sampling of soil borings SB-5 and SB-7, a free phase petroleum product and refusal were encountered, respectively, and sufficient volumes of soil could not be collected for analysis. Similarly, sufficient volumes of soil could not be collected from SB-3 and SB-6 to facilitate analysis of the full suite of parameters.

3.2 Monitoring Well Installation

At the conclusion of soil sampling, eleven (11) of the twelve (12) Geoprobe® borings advanced for soil sampling were converted to monitoring wells to facilitate the collection of groundwater samples. The monitoring wells (MW) were constructed of one (1) inch diameter, flush-joint threaded, schedule 40 polyvinyl chloride (PVC) pipe consisting of varying lengths of 0.010 slotted screen and solid riser pipe. Following installation, the annulus of each boring was backfilled with sand to a depth of approximately four (4) inches bsg with the remainder of the annulus filled with bentonite chips that were hydrated to form a seal at the surface. Each well head was then fitted with a PVC slip cap.

Following completion, the monitoring wells were gauged to measure the depth to the water table and evaluate the presence of free phase hydrocarbons. As a result, a perched water table was determined to lie beneath the site for which the associated aquiclude/aquitard is undulatory as evidenced by the depths to groundwater being measured anywhere from approximately one (1) foot to six (6) feet bsg. Based on subsurface data acquired from adjoining properties, the deeper water table lies approximately 12-15 feet bsg.

Initial gauging data, which was collected on December 8, 2015 with an oil/water interface probe, registered the presence of free phase hydrocarbons in MW-6, MW-8, MW-9, MW-10, MW-11, and MW-12 (Appendix 1) at thicknesses ranging from a heavy sheen to approximately 0.1 inches. Conversely, a follow-up gauging event which was completed on January 11, 2016, only registered light sheen in MW-12.

3.3 Groundwater Sampling

As previously stated, based on an encountered refusal during soil sampling, a monitoring well was not installed at sampling location SB-7. Furthermore, groundwater samples were not collected from MW-6, MW-8, MW-9, MW-10, MW-11, and MW-12 due to the initial presence of free phase petroleum.

Groundwater samples were collected from MW-1 through MW-5 on December 8, 2015 using a peristaltic pump equipped with dedicated Teflon and polyethylene tubing. Groundwater samples were collected according to the following protocol:

At the conclusion of monitoring well purging, the flow rate of the peristaltic pump is reduced to minimize agitation of the sample. Samples are retained in the appropriate bottles representative of each location with some having added preservatives; all bottles are filled in accordance with laboratory requirements. At the conclusion of sampling, the bottles are packed into an ice-filled cooler for additional preservation and transportation to the laboratory.

4.0 ANALYTICAL RESULTS

The collected soil samples produced measureable concentrations above both the Virginia DEQ VRP Tier III Screening Concentrations and EPA Region 3 Screening Levels while other concentrations were measured that only exceeded federal screening levels as detailed below.

State and Federal Screening Level Constituent Exceedances per Sample Location

- SB-3: Benzo (a) pyrene, Benzo (b) fluoranthene;
- SB-8: Thallium, Benzo (a) pyrene;
- SB-9: Thallium, Benzo (a) pyrene;
- SB-10: Benzo (a) pyrene, Naphthalene
- SB-11: Thallium, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Naphthalene;
- SB-12: Thallium, Benzene, 2-Methylnaphthalene, Benzo (a) pyrene, Benzo (b) Fluoranthene, Benzo (k) fluoranthene, Indeno (1,2,3-cd) pyrene, Naphthalene.

Federal Screening Level Constituent Exceedances per Sample Location

- SB-3: Benzo (a) anthracene, Indeno (1,2,3-cd) pyrene;
- SB-8: Benzo (a) anthracene, Benzo (b) fluoranthene;
- SB-9: Benzo (a) anthracene, Benzo (b) fluoranthene, Indeno (1,2,3-cd) pyrene;
- SB-10: Benzo (a) anthracene, Benzo (b) fluoranthene, Indeno (1,2,3-cd) pyrene;
- SB-11: Indeno (1,2,3-cd) pyrene;
- SB-12: Ethylbenzene.

In addition to the above, soil borings SB-6 and SB-8 through SB-12 produced TPH-DRO and/or TPH-ORO concentrations that exceed the DEQ TPH reporting limit of 100 mg/kg; however, the measured concentrations do not exceed the TPH soil saturation values detailed by the DEQ in the UST Technical Guidance Manual.

The collected groundwater samples produced measureable concentrations above the DEQ VRP Tier II and Tier III Groundwater Screening Concentrations (Construction Worker in a Trench) in addition to DEQ reporting levels for TPH concentrations in groundwater as detailed below.

- MW-1: Cadmium, Lead;
- MW-2: Cadmium, Lead;
- MW-4: Arsenic, Cadmium, Copper, Lead, Benzene, o-Xylene;
- MW-5: Lead, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, m+p-Xylenes, o-Xylene.

In addition, as previously stated, MW-4 and MW-5 both contained TPH-DRO and TPH-ORO concentrations in excess of the DEQ TPH reporting limit.

The cumulative analytical summary tables are included as Appendix 2 and the complete laboratory report is included as Appendix 3.

5.0 SUMMARY AND RECOMMENDATIONS

Timmons Group has completed an ASTM Standard E 1903-11 Phase II ESA of approximately 7.9 acres located at 3301 Williamsburg Avenue in the City of Richmond, Virginia. Based on proposed usage and the associated identification of potential risk, the assessment entailed the collection of soil and groundwater samples from the Subject Property for laboratory analysis of suspect contaminants.

When compared to published state and federal regulatory screening levels, the measured soil and groundwater concentrations detailed by this Phase II ESA present a potential risk to human health and/or the environment for which Timmons Group prescribes notifying DEQ of all regulatory exceedances. As detailed by DEQ Guidance Document #01-2024, the Storage Tank Program Technical Manual Section 2.11 details that former manufactured gas plants are to be automatically listed in the DEQ VRP with optional oversight by the DEQ Storage Tank program under Article 11 of Virginia Water Control Law. As such, DEQ will be engaged in providing guidance for contaminant remediation during property redevelopment. Furthermore, it may be prudent to conduct additional sampling procedures to more accurately delineate the areas of contamination across the Subject Property.

6.0 REFERENCES

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APPENDICES

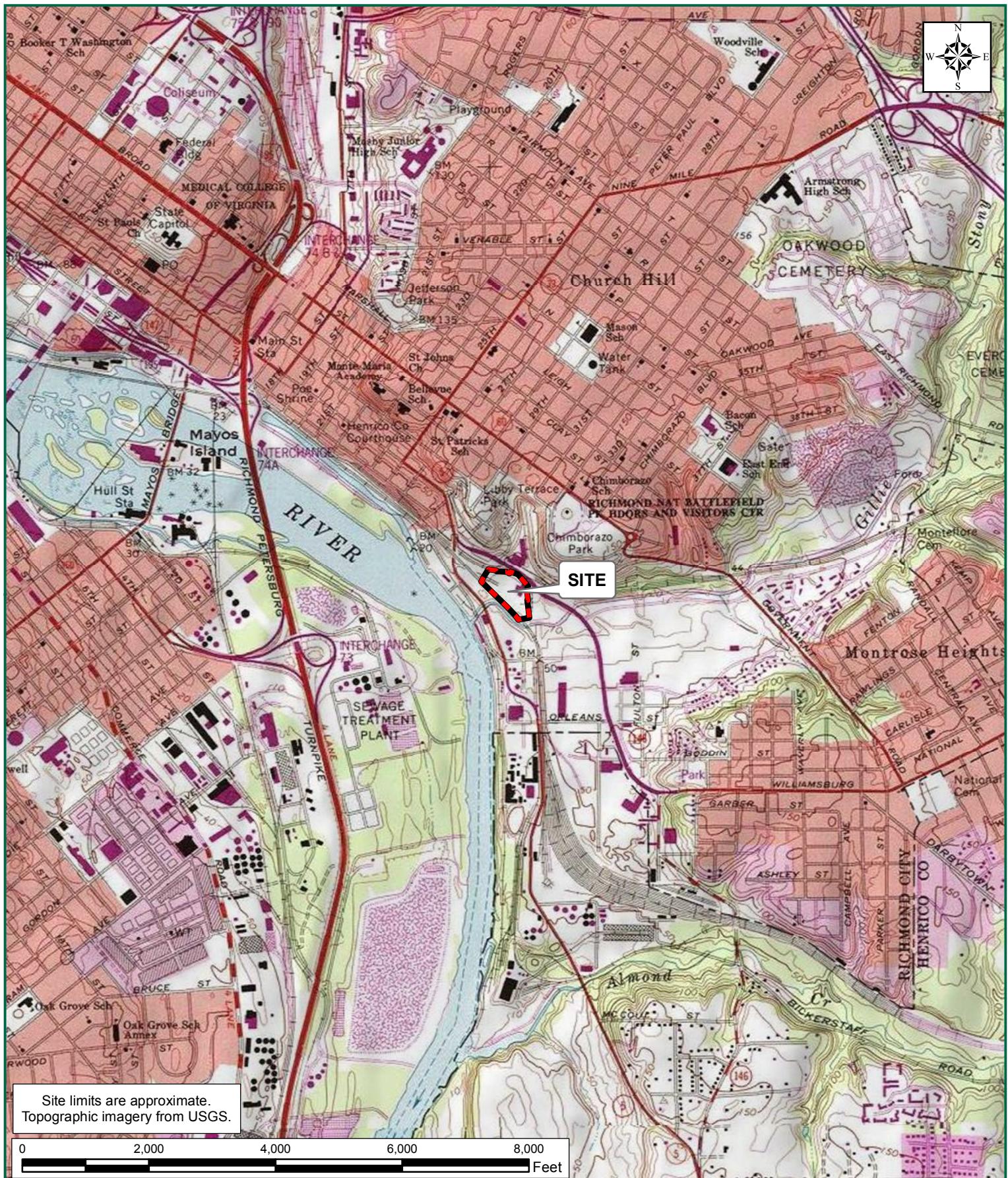
Appendix 1 Site Maps

Appendix 2 Analytical Summary Tables

Appendix 3 Air Water and Soil Laboratories Report

APPENDIX 1

Site Maps



FULTON GAS WORKS
CITY OF RICHMOND, VIRGINIA
FIGURE 1: VICINITY MAP

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS. •

TIMMONS GROUP JOB NUMBER: 36156.006

PROJECT STUDY LIMITS: 324 ACRES

LATITUDE: 37° 31' 24.9" N

LONGITUDE: 77° 24' 55.8" W

U.S.G.S. QUADRANGLE(S): RICHMOND

DATE(S): 2013

WATERSHED(S): LOWER JAMES

HYDROLOGIC UNIT CODE(S): 02080206



APPENDIX 2

Analytical Summary Tables

Soil Analytical Results (Samples Collected December 7-8, 2015)

Parameter	EPA RSL Industrial Soil (mg/kg)	DEQ VRP Tier III Screening Concentrations for Soil: Restricted Industrial (mg/kg)	EPA Protection of Groundwater (mg/kg) - MCL based SSL	SB-1	SB-2	SB-3	SB-4	SB-5 REFUSA <i>L</i>	SB-6	SB-7 REFUSA <i>L</i>	SB-8	SB-9	SB-10	SB-11	SB-12	
RCRA 8 METALS																
Cadmium	98.00	98.00	no listing													
Chromium, Total	18,000 (CR III); 6.30 (CR VI)	6.30 (CR VI)	no listing		12.20	11.30	14.90		7.57		12.80	23.20	8.01	9.06	17.70	
Copper	4,700.00	4,700.00	46.00													
Mercury	4.00	4.00	0.10													
Nickel	2,200.00	2,200.00	no listing													
Lead	800.00	800.00	14.00													
Thallium	1.20	1.20	0.14								3.01	3.84		12.10	7.24	
Zinc	35,000.00	35,000.00	no listing													
VOCS																
1,2,4-Trimethylbenzene	24.00	24.00	no listing													
1,3,5-Trimethylbenzene	1,200.00	1,200.00	no listing													
4-Isopropyltoluene			no listing												0.63	
Acetone	67,000.00	67,000.00	no listing													
Benzene	5.10	42.00	0.0026												177.00	
Ethylbenzene	25.00	250.00	0.78												96.30	
Isopropylbenzene	1,100.00	1,100.00	no listing													
m-p-Xylenes	240.00	240.00	no listing													
n-Butylbenzene	5,800.00	5,800.00	no listing													
n-Propylbenzene	2,400.00	2,200.00	no listing													
o-Xylene	280.00	280.00	no listing													
Styrene	3,500.00	3,500.00	0.11													
Toluene	4,700.00	4,700.00	0.69													
Xylenes, Total	280.00	250.00	9.90													
SVOCs																
2-Methylnaphthalene	300.00	300.00	no listing												569.00	
Acenaphthene	4,500.00	4,500.00	no listing													
Acenaphthylene	2,300.00	2,300.00	no listing													
Anthracene	23,000.00	23,000.00	no listing													
Benzo (a) anthracene	2.90	29.00	no listing					16.50								
Benzo (a) pyrene	0.29	2.90	0.24					24.40							3.05	
Benzo (b) fluoranthene	2.90	29.00	no listing					29.80							3.64	
Benzo (g,h,i) perylene	230.00	2,300.00	no listing					13.80								
Benzo (k) fluoranthene	29.00	290.00	no listing					9.70							3.02	
Chrysene	290.00	2,900.00	no listing													
Dibenzofuran	100.00	100.00	no listing													
Fluoranthene	3,000.00	3,000.00	no listing													
Fluorene	3,000.00	3,000.00	no listing													
Indeno (1,2,3-cd) pyrene	2.90	29.00	no listing					14.70							3.79	
Naphthalene	17.00	59.00	no listing												265.00	
Phenanthrene	2,300.00	2,300.00	no listing												1,770.00	
Pyrene	2,300.00	23,000.00	no listing												2,060.00	
HYDROCARBONS																
TPH - DRO	42.00 (aromatic low) 60.00 (aromatic medium) 3,300.00 (aromatic high) 220.00 (aliphatic low) 44.00 (aliphatic medium) 350,000 (aliphatic high)	100*	no listing			24.00				4,980.00			1,560.00	567.00	3,370.00	564.00
TPH - ORO			no listing													
			no listing													
			no listing													
			no listing													
			no listing													
			no listing													

NOTES:

Blank spaces denote no measured concentrations

Cells highlighted orange denote concentrations that exceed federal screening levels.

Cells highlighted yellow denote concentrations that exceed federal and state levels.

* Virginia DEQ reportable concentration limit for TPH.

Groundwater Analytical Results (Samples Collected December 8, 2015)

Parameter	DEQ VRP Tier III Screening Concentrations Groundwater: Construction Worker in a Trench (ug/L)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-1 DUP
RCRA 8 METALS							
Arsenic	207.00				373.00		
Cadmium	5.00	9.90	10.50		199.00		5.10
Chromium	289.00						
Copper	27,600				67,200		
Nickel	5,230.00						
Lead	15.00*	236.00	183.00		157.00	31.30	89.40
Selenium	3,450.00						
Thallium	27.60						
Zinc	247,000.00						
VOCS							
1,2,4-Trimethylbenzene	23.20					215.00	
1,3,5-Trimethylbenzene	12.00					58.30	
Benzene	15.00				212.00	410.00	
Ethylbenzene	700.00						
Isopropylbenzene	92.50						
m+p-Xylenes	21.80					463.00	
n-Butylbenzene	2.00						
o-Xylene	21.90				52.90	249.00	
Styrene	656.00						
Toluene	1,020.00						
Xylenes, Total	10,000						
SVOCs							
Naphthalene	0.722**				553.00	1,450.00	
HYDROCARBONS							
TPH-DRO	***1,000.00				2,070.00	3,680.00	
TPH-ORO	***1,000.00				1,700.00	1,200.00	

NOTES:

Blank spaces denote no measured concentrations that exceed screening levels

* DEQ VRP Tier II screening concentration

** Compare to VRP Tier III dermal exposure with water table contact of 606 ug/L

*** Screening Level is DEQ TPH reporting level for groundwater

APPENDIX 3

Air Water and Soil Laboratories Report



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 15L0217

Client Name:	Timmons Group 1001 Boulders Parkway, Suite 300 Richmond, VA 23225	Date Received:	December 8, 2015 15:38
		Date Issued:	December 16, 2015 14:36
Submitted To:	John Russell	Project Number:	[none]
		Purchase Order:	

Client Site I.D.: Fulton Gas Works

Enclosed are the results of analyses for samples received by the laboratory on 12/08/2015 15:38. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

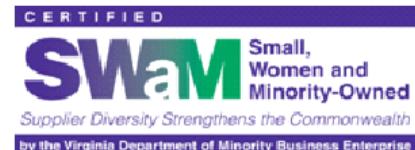
End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Air Water & Soil Laboratories, Inc.





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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 15L0217

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1	15L0217-01	Soil	12/07/2015 10:35	12/08/2015 15:38
SB2	15L0217-02	Soil	12/07/2015 10:50	12/08/2015 15:38
SB3	15L0217-03	Soil	12/07/2015 11:25	12/08/2015 15:38
SB4	15L0217-04	Soil	12/07/2015 11:40	12/08/2015 15:38
SB6	15L0217-05	Soil	12/07/2015 12:45	12/08/2015 15:38
SB8	15L0217-06	Soil	12/07/2015 14:15	12/08/2015 15:38
SB9	15L0217-07	Soil	12/07/2015 14:40	12/08/2015 15:38
SB10	15L0217-08	Soil	12/07/2015 14:55	12/08/2015 15:38
SB12	15L0217-09	Soil	12/07/2015 15:15	12/08/2015 15:38
SB11	15L0217-10	Soil	12/08/2015 09:45	12/08/2015 15:38
MW1	15L0217-11	Ground Water	12/08/2015 11:30	12/08/2015 15:38
MW2	15L0217-12	Ground Water	12/08/2015 11:00	12/08/2015 15:38
MW3	15L0217-13	Ground Water	12/08/2015 12:00	12/08/2015 15:38
MW4	15L0217-14	Ground Water	12/08/2015 12:20	12/08/2015 15:38
MW5	15L0217-15	Ground Water	12/08/2015 12:50	12/08/2015 15:38
MW1-Dup	15L0217-16	Ground Water	12/08/2015 11:45	12/08/2015 15:38

PCB results have been calculated based on dry weight.



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	01	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:58	BG
Arsenic	01RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:11	BG
Beryllium	01	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:59	BG
Cadmium	01	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:59	BG
Chromium	01	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:59	BG
Copper	01	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:58	BG
Mercury	01	SW7471B	0.070 mg/kg		0.008	1	12/10/15 16:30	12/11/15 12:50	MWL
Nickel	01	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:59	BG
Lead	01	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:59	BG
Antimony	01	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 12:59	BG
Selenium	01	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:59	BG
Thallium	01	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:59	BG
Zinc	01	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:59	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1,1-Trichloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1,2,2-Tetrachloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1,2-Trichloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1-Dichloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1-Dichloroethylene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,1-Dichloropropene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2,3-Trichlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2,3-Trichloropropane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2,4-Trichlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2,4-Trimethylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2-Dibromoethane (EDB)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2-Dichlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2-Dichloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,2-Dichloropropane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,3,5-Trimethylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,3-Dichlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,3-Dichloropropane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
1,4-Dichlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
2,2-Dichloropropane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
2-Butanone (MEK)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
2-Chlorotoluene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
2-Hexanone (MBK)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
4-Chlorotoluene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
4-Isopropyltoluene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
4-Methyl-2-pentanone (MIBK)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Acetone	01	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 11:59	12/10/15 11:59	MKD
Benzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Bromobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Bromochloromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Bromodichloromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Bromoform	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Bromomethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Carbon disulfide	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Carbon tetrachloride	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Chlorobenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Chloroform	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Chloromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
cis-1,2-Dichloroethylene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
cis-1,3-Dichloropropene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Dibromochloromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Dibromomethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Dichlorodifluoromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Di-isopropyl ether (DIPE)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Ethylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Hexachlorobutadiene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Iodomethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Isopropylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
m+p-Xylenes	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Methylene chloride	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Methyl-t-butyl ether (MTBE)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Naphthalene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
n-Butylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
n-Propylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
o-Xylene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
sec-Butylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Styrene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
tert-Butylbenzene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Tetrachloroethylene (PCE)	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Toluene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
trans-1,2-Dichloroethylene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Trichloroethylene	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Trichlorofluoromethane	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Vinyl acetate	01	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 11:59	12/10/15 11:59	MKD
Vinyl chloride	01	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 11:59	12/10/15 11:59	MKD
Xylenes, Total	01	SW8260B	<15.0 ug/kg		15.0	1	12/10/15 11:59	12/10/15 11:59	MKD
Surr: 1,2-Dichloroethane-d4	01	SW8260B	103 %		80-120		12/10/15 11:59	12/10/15 11:59	MKD
Surr: 4-Bromofluorobenzene	01	SW8260B	93.3 %		85-120		12/10/15 11:59	12/10/15 11:59	MKD
Surr: Dibromofluoromethane	01	SW8260B	104 %		80-119		12/10/15 11:59	12/10/15 11:59	MKD
Surr: Toluene-d8	01	SW8260B	99.7 %		85-115		12/10/15 11:59	12/10/15 11:59	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1,2,4-Trichlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1,2-Dichlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1,2-Diphenylhydrazine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1,3-Dichlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1,4-Dichlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1-Chloronaphthalene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
1-Naphthylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,3,4,6-Tetrachlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4,5-Trichlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4,6-Trichlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4-Dichlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4-Dimethylphenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4-Dinitrophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,4-Dinitrotoluene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2,6-Dinitrotoluene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Chloronaphthalene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Chlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Methylnaphthalene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Naphthylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Nitroaniline	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
2-Nitrophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
3,3'-Dichlorobenzidine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
3-Methylcholanthrene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
3-Nitroaniline	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4,6-Dinitro-2-methylphenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Aminobiphenyl	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Bromophenyl phenyl ether	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Chloroaniline	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Chlorophenyl phenyl ether	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Nitroaniline	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
4-Nitrophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
7,12-Dimethylbenz (a) anthracene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Acenaphthene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Acenaphthylene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Acetophenone	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Aniline	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Anthracene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzidine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzo (a) anthracene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzo (b) fluoranthene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzo (g,h,i) perylene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzo (k) fluoranthene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzoic acid	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Benzyl alcohol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
bis (2-Chloroethoxy) methane	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
bis (2-Chloroethyl) ether	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
bis (2-Chloroisopropyl) ether	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
bis (2-Ethylhexyl) phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Butyl benzyl phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Chrysene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Dibenz (a,h) anthracene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Dibenz (a,j) acridine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Dibenzofuran	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Diethyl phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Dimethyl phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Di-n-butyl phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Di-n-octyl phthalate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Diphenylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Ethyl methanesulfonate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Fluoranthene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Fluorene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Hexachlorobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Hexachlorobutadiene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Hexachlorocyclopentadiene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Indeno (1,2,3-cd) pyrene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Isophorone	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
m+p-Cresols	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Methyl methanesulfonate	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Naphthalene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Nitrobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
n-Nitrosodimethylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
n-Nitrosodi-n-butylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
n-Nitrosodi-n-propylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
n-Nitrosodiphenylamine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
n-Nitrosopiperidine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
o+m+p-Cresols	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
o-Cresol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
p-(Dimethylamino)azobenzene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
p-Chloro-m-cresol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Pentachloronitrobenzene (quintozone)	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Pentachlorophenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Phenacetin	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Phenanthrene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Phenol	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Pronamide	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Pyrene	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Pyridine	01	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:13	JHV
Surr: 2,4,6-Tribromophenol	01	SW8270D	86.1 %		35-125		12/11/15 10:10	12/11/15 16:13	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB1 Laboratory Sample ID: 15L0217-01

Date/Time Sampled: 12/07/2015 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	01	SW8270D	65.2 %		45-105		12/11/15 10:10	12/11/15 16:13	JHV
Surr: 2-Fluorophenol	01	SW8270D	64.4 %		35-105		12/11/15 10:10	12/11/15 16:13	JHV
Surr: Nitrobenzene-d5	01	SW8270D	66.8 %		35-100		12/11/15 10:10	12/11/15 16:13	JHV
Surr: Phenol-d5	01	SW8270D	63.9 %		40-100		12/11/15 10:10	12/11/15 16:13	JHV
Surr: p-Terphenyl-d14	01	SW8270D	94.9 %		30-125		12/11/15 10:10	12/11/15 16:13	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	01	SW8015C	<10.0 mg/kg		10.0	1	12/09/15 14:17	12/10/15 21:28	JHV
Surr: Pentacosane	01	SW8015C	75.6 %		40-160		12/09/15 14:17	12/10/15 21:28	JHV
TPH-Semi-Volatiles (ORO)	01RE1	SW8015C	53.1 mg/kg		10.0	1	12/09/15 15:02	12/11/15 11:03	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1221	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1232	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1242	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1248	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1254	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
PCB as Aroclor 1260	01	SW8082A	<0.122 mg/kg dry		0.122	1	12/09/15 15:33	12/10/15 16:57	SKS
Surr: DCB	01	SW8082A	80.0 %		30-105		12/09/15 15:33	12/10/15 16:57	SKS
Surr: TCMX	01	SW8082A	75.0 %		30-105		12/09/15 15:33	12/10/15 16:57	SKS
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	80.6 %		0.10	1	12/10/15 13:46	12/10/15 13:46	KEW



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results		Laboratory Sample ID: 15L0217-02								
Sample I.D.	SB2	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods										
Silver	02	SW6010C		<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:09	BG
Arsenic	02RE1	SW6010C		<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:16	BG
Beryllium	02	SW6010C		<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:08	BG
Cadmium	02	SW6010C		1.57 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:09	BG
Chromium	02	SW6010C		12.2 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:09	BG
Copper	02	SW6010C		40.4 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:09	BG
Mercury	02RE1	SW7471B		0.755 mg/kg		0.078	10	12/10/15 16:30	12/11/15 13:47	MWL
Nickel	02	SW6010C		6.93 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:09	BG
Lead	02	SW6010C		314 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:09	BG
Antimony	02	SW6010C		<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:09	BG
Selenium	02	SW6010C		<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:09	BG
Thallium	02	SW6010C		<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:09	BG
Zinc	02	SW6010C		68.0 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:09	BG
Volatile Organic Compounds by GCMS										
1,1,1,2-Tetrachloroethane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1,1-Trichloroethane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1,2,2-Tetrachloroethane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1,2-Trichloroethane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1-Dichloroethane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1-Dichloroethylene	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,1-Dichloropropene	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2,3-Trichlorobenzene	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2,3-Trichloropropane	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2,4-Trichlorobenzene	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2,4-Trimethylbenzene	02	SW8260B		<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	SB2	Laboratory Sample ID: 15L0217-02							
Date/Time Sampled: 12/07/2015 10:50									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2-Dibromoethane (EDB)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2-Dichlorobenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2-Dichloroethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,2-Dichloropropane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,3,5-Trimethylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,3-Dichlorobenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,3-Dichloropropane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
1,4-Dichlorobenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
2,2-Dichloropropane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
2-Butanone (MEK)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
2-Chlorotoluene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
2-Hexanone (MBK)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
4-Chlorotoluene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
4-Isopropyltoluene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
4-Methyl-2-pentanone (MIBK)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Acetone	02RE1	SW8260B	<10.0 ug/kg		10.0	1	12/11/15 16:53	12/11/15 16:53	KCS
Benzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Bromobenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Bromochloromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Bromodichloromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Bromoform	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Bromomethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Carbon disulfide	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Carbon tetrachloride	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Chlorobenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Chloroform	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Chloromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
cis-1,2-Dichloroethylene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
cis-1,3-Dichloropropene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Dibromochloromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Dibromomethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Dichlorodifluoromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Di-isopropyl ether (DIPE)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Ethylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Hexachlorobutadiene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Iodomethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Isopropylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
m+p-Xylenes	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Methylene chloride	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Methyl-t-butyl ether (MTBE)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Naphthalene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
n-Butylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
n-Propylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
o-Xylene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
sec-Butylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Styrene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
tert-Butylbenzene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Tetrachloroethylene (PCE)	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Toluene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
trans-1,2-Dichloroethylene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Trichloroethylene	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Trichlorofluoromethane	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Vinyl acetate	02	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 12:46	12/10/15 12:46	MKD
Vinyl chloride	02	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 12:46	12/10/15 12:46	MKD
Xylenes, Total	02	SW8260B	<15.0 ug/kg		15.0	1	12/10/15 12:46	12/10/15 12:46	MKD
Surr: 1,2-Dichloroethane-d4	02	SW8260B	104 %		80-120		12/10/15 12:46	12/10/15 12:46	MKD
Surr: 4-Bromofluorobenzene	02	SW8260B	94.2 %		85-120		12/10/15 12:46	12/10/15 12:46	MKD
Surr: Dibromofluoromethane	02	SW8260B	102 %		80-119		12/10/15 12:46	12/10/15 12:46	MKD
Surr: Toluene-d8	02	SW8260B	99.9 %		85-115		12/10/15 12:46	12/10/15 12:46	MKD
Surr: 1,2-Dichloroethane-d4	02RE1	SW8260B	104 %		80-120		12/11/15 16:53	12/11/15 16:53	KCS
Surr: 4-Bromofluorobenzene	02RE1	SW8260B	96.3 %		85-120		12/11/15 16:53	12/11/15 16:53	KCS
Surr: Dibromofluoromethane	02RE1	SW8260B	107 %		80-119		12/11/15 16:53	12/11/15 16:53	KCS
Surr: Toluene-d8	02RE1	SW8260B	96.7 %		85-115		12/11/15 16:53	12/11/15 16:53	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1,2,4-Trichlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1,2-Dichlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1,2-Diphenylhydrazine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1,3-Dichlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1,4-Dichlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1-Chloronaphthalene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
1-Naphthylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,3,4,6-Tetrachlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,4,5-Trichlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,4,6-Trichlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,4-Dimethylphenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,4-Dinitrophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,4-Dinitrotoluene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,6-Dichlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2,6-Dinitrotoluene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Chloronaphthalene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Chlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Methylnaphthalene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Naphthylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Nitroaniline	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
2-Nitrophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
3,3'-Dichlorobenzidine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
3-Methylcholanthrene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
3-Nitroaniline	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4,6-Dinitro-2-methylphenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Aminobiphenyl	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Bromophenyl phenyl ether	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Chloroaniline	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Chlorophenyl phenyl ether	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Nitroaniline	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
4-Nitrophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
7,12-Dimethylbenz (a) anthracene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Acenaphthene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Acenaphthylene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Acetophenone	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results		Laboratory Sample ID: 15L0217-02								
Sample I.D.	SB2	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS										
Aniline	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Anthracene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzidine	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzo (a) anthracene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzo (a) pyrene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzo (b) fluoranthene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzo (g,h,i) perylene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzo (k) fluoranthene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzoic acid	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Benzyl alcohol	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
bis (2-Chloroethoxy) methane	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
bis (2-Chloroethyl) ether	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
bis (2-Chloroisopropyl) ether	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
bis (2-Ethylhexyl) phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Butyl benzyl phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Chrysene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Dibenz (a,h) anthracene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Dibenz (a,j) acridine	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Dibenzofuran	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Diethyl phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Dimethyl phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Di-n-butyl phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Di-n-octyl phthalate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Diphenylamine	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Ethyl methanesulfonate	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Fluoranthene	02	SW8270D		<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Hexachlorobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Hexachlorobutadiene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Hexachlorocyclopentadiene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Hexachloroethane	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Indeno (1,2,3-cd) pyrene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Isophorone	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
m+p-Cresols	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Methyl methanesulfonate	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Naphthalene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Nitrobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
n-Nitrosodimethylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
n-Nitrosodi-n-butylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
n-Nitrosodi-n-propylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
n-Nitrosodiphenylamine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
n-Nitrosopiperidine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
o+m+p-Cresols	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
o-Cresol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
p-(Dimethylamino)azobenzene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
p-Chloro-m-cresol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Pentachloronitrobenzene (quintozone)	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Pentachlorophenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Phenacetin	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Phenanthrene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Phenol	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Pyrene	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
Pyridine	02	SW8270D	<330 ug/kg		330	4	12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	02	SW8270D	73.0 %		35-125		12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: 2-Fluorobiphenyl</i>	02	SW8270D	57.2 %		45-105		12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: 2-Fluorophenol</i>	02	SW8270D	69.9 %		35-105		12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: Nitrobenzene-d5</i>	02	SW8270D	72.4 %		35-100		12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: Phenol-d5</i>	02	SW8270D	69.0 %		40-100		12/11/15 10:10	12/11/15 17:30	JHV
<i>Surr: p-Terphenyl-d14</i>	02	SW8270D	92.7 %		30-125		12/11/15 10:10	12/11/15 17:30	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	02	SW8015C	<10.0 mg/kg		10.0	1	12/09/15 14:17	12/10/15 21:53	JHV
<i>Surr: Pentacosane</i>	02	SW8015C	70.5 %		40-160		12/09/15 14:17	12/10/15 21:53	JHV
TPH-Semi-Volatiles (ORO)	02	SW8015C	20.8 mg/kg		10.0	1	12/09/15 15:02	12/10/15 17:41	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1221	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1232	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1242	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1248	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1254	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
PCB as Aroclor 1260	02	SW8082A	<0.127 mg/kg dry		0.127	1	12/09/15 15:33	12/10/15 17:16	SKS
<i>Surr: DCB</i>	02	SW8082A	60.0 %		30-105		12/09/15 15:33	12/10/15 17:16	SKS
<i>Surr: TCMX</i>	02	SW8082A	75.0 %		30-105		12/09/15 15:33	12/10/15 17:16	SKS



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB2 Laboratory Sample ID: 15L0217-02

Date/Time Sampled: 12/07/2015 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	75.8 %		0.10	1	12/10/15 13:48	12/10/15 13:48	KEW



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 6000/7000 Series Methods

Silver	03	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:13	BG
Arsenic	03RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:22	BG
Beryllium	03	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:13	BG
Cadmium	03	SW6010C	2.10 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:14	BG
Chromium	03	SW6010C	11.3 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:14	BG
Copper	03	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:13	BG
Mercury	03	SW7471B	0.013 mg/kg		0.008	1	12/10/15 16:30	12/11/15 13:02	MWL
Nickel	03	SW6010C	2.02 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:14	BG
Lead	03	SW6010C	7.86 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:14	BG
Antimony	03	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:14	BG
Selenium	03	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:14	BG
Thallium	03	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:14	BG
Zinc	03	SW6010C	9.02 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:14	BG

Volatile Organic Compounds by GCMS

1,1,1,2-Tetrachloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1,1-Trichloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1,2,2-Tetrachloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1,2-Trichloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1-Dichloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1-Dichloroethylene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,1-Dichloropropene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2,3-Trichlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2,3-Trichloropropane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2,4-Trichlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2,4-Trimethylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2-Dibromoethane (EDB)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2-Dichlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2-Dichloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,2-Dichloropropane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,3,5-Trimethylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,3-Dichlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,3-Dichloropropane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
1,4-Dichlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
2,2-Dichloropropane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
2-Butanone (MEK)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
2-Chlorotoluene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
2-Hexanone (MBK)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
4-Chlorotoluene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
4-Isopropyltoluene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
4-Methyl-2-pentanone (MIBK)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Acetone	03RE1	SW8260B	22.7 ug/kg		10.0	1	12/11/15 17:17	12/11/15 17:17	KCS
Benzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Bromobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Bromochloromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Bromodichloromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Bromoform	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Bromomethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Carbon disulfide	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Carbon tetrachloride	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Chlorobenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Chloroform	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Chloromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
cis-1,2-Dichloroethylene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
cis-1,3-Dichloropropene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Dibromochloromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Dibromomethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Dichlorodifluoromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Di-isopropyl ether (DIPE)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Ethylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Hexachlorobutadiene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Iodomethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Isopropylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
m+p-Xylenes	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Methylene chloride	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Methyl-t-butyl ether (MTBE)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Naphthalene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
n-Butylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
n-Propylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
o-Xylene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
sec-Butylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Styrene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
tert-Butylbenzene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Tetrachloroethylene (PCE)	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Toluene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
trans-1,2-Dichloroethylene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Trichloroethylene	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Trichlorofluoromethane	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Vinyl acetate	03	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 13:10	12/10/15 13:10	MKD
Vinyl chloride	03	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:10	12/10/15 13:10	MKD
Xylenes, Total	03	SW8260B	<15.0 ug/kg		15.0	1	12/10/15 13:10	12/10/15 13:10	MKD
Surr: 1,2-Dichloroethane-d4	03	SW8260B	107 %		80-120		12/10/15 13:10	12/10/15 13:10	MKD
Surr: 4-Bromofluorobenzene	03	SW8260B	96.1 %		85-120		12/10/15 13:10	12/10/15 13:10	MKD
Surr: Dibromofluoromethane	03	SW8260B	104 %		80-119		12/10/15 13:10	12/10/15 13:10	MKD
Surr: Toluene-d8	03	SW8260B	99.7 %		85-115		12/10/15 13:10	12/10/15 13:10	MKD
Surr: 1,2-Dichloroethane-d4	03RE1	SW8260B	110 %		80-120		12/11/15 17:17	12/11/15 17:17	KCS
Surr: 4-Bromofluorobenzene	03RE1	SW8260B	94.2 %		85-120		12/11/15 17:17	12/11/15 17:17	KCS
Surr: Dibromofluoromethane	03RE1	SW8260B	105 %		80-119		12/11/15 17:17	12/11/15 17:17	KCS
Surr: Toluene-d8	03RE1	SW8260B	100 %		85-115		12/11/15 17:17	12/11/15 17:17	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1,2,4-Trichlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1,2-Dichlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1,2-Diphenylhydrazine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1,3-Dichlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1,4-Dichlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1-Chloronaphthalene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
1-Naphthylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,3,4,6-Tetrachlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,4,5-Trichlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,4,6-Trichlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,4-Dimethylphenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,4-Dinitrophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,4-Dinitrotoluene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,6-Dichlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2,6-Dinitrotoluene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Chloronaphthalene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Chlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Methylnaphthalene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Naphthylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Nitroaniline	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
2-Nitrophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
3,3'-Dichlorobenzidine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
3-Methylcholanthrene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
3-Nitroaniline	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4,6-Dinitro-2-methylphenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Aminobiphenyl	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Bromophenyl phenyl ether	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Chloroaniline	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Chlorophenyl phenyl ether	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Nitroaniline	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
4-Nitrophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
7,12-Dimethylbenz (a) anthracene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Acenaphthene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Acenaphthylene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Acetophenone	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Aniline	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Anthracene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzidine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzo (a) anthracene	03	SW8270D	16500 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzo (a) pyrene	03	SW8270D	24400 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzo (b) fluoranthene	03	SW8270D	29800 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzo (g,h,i) perylene	03	SW8270D	13800 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzo (k) fluoranthene	03	SW8270D	9700 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzoic acid	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Benzyl alcohol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
bis (2-Chloroethoxy) methane	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
bis (2-Chloroethyl) ether	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
bis (2-Chloroisopropyl) ether	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
bis (2-Ethylhexyl) phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Butyl benzyl phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Chrysene	03	SW8270D	14300 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Dibenz (a,h) anthracene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Dibenz (a,j) acridine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Dibenzofuran	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Diethyl phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Dimethyl phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Di-n-butyl phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Di-n-octyl phthalate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Diphenylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Ethyl methanesulfonate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Fluoranthene	03	SW8270D	16000 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Hexachlorobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Hexachlorobutadiene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Hexachlorocyclopentadiene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Hexachloroethane	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Indeno (1,2,3-cd) pyrene	03	SW8270D	14700 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Isophorone	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
m+p-Cresols	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Methyl methanesulfonate	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Naphthalene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Nitrobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
n-Nitrosodimethylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
n-Nitrosodi-n-butylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
n-Nitrosodi-n-propylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
n-Nitrosodiphenylamine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
n-Nitrosopiperidine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
o+m+p-Cresols	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
o-Cresol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
p-(Dimethylamino) azobenzene	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
p-Chloro-m-cresol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Pentachloronitrobenzene (quintozone)	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Pentachlorophenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Phenacetin	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Phenanthrene	03	SW8270D	7660 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Phenol	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Pyrene	03	SW8270D	13000 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
Pyridine	03	SW8270D	<3310 ug/kg		3310	20	12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	03	SW8270D	%	DS	35-125		12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: 2-Fluorobiphenyl</i>	03	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: 2-Fluorophenol</i>	03	SW8270D	57.0 %		35-105		12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: Nitrobenzene-d5</i>	03	SW8270D	59.2 %		35-100		12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: Phenol-d5</i>	03	SW8270D	53.2 %		40-100		12/11/15 10:10	12/11/15 18:09	JHV
<i>Surr: p-Terphenyl-d14</i>	03	SW8270D	%	DS	30-125		12/11/15 10:10	12/11/15 18:09	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	03	SW8015C	24.0 mg/kg		10.0	1	12/10/15 16:02	12/11/15 15:34	JHV
<i>Surr: Pentacosane</i>	03	SW8015C	81.5 %		40-160		12/10/15 16:02	12/11/15 15:34	JHV
TPH-Semi-Volatiles (ORO)	03	SW8015C	618 mg/kg		463	25	12/09/15 15:02	12/10/15 18:07	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1221	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1232	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1242	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1248	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1254	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
PCB as Aroclor 1260	03	SW8082A	<0.115 mg/kg dry		0.115	1	12/09/15 15:33	12/10/15 17:34	SKS
<i>Surr: DCB</i>	03	SW8082A	25.0 %	S	30-105		12/09/15 15:33	12/10/15 17:34	SKS
<i>Surr: TCMX</i>	03	SW8082A	30.0 %		30-105		12/09/15 15:33	12/10/15 17:34	SKS



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB3 Laboratory Sample ID: 15L0217-03

Date/Time Sampled: 12/07/2015 11:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	86.8 %		0.10	1	12/10/15 13:50	12/10/15 13:50	KEW



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 6000/7000 Series Methods

Silver	04	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:18	BG
Arsenic	04RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:28	BG
Beryllium	04	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:18	BG
Cadmium	04	SW6010C	1.77 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:19	BG
Chromium	04	SW6010C	14.9 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:19	BG
Copper	04	SW6010C	48.6 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:18	BG
Mercury	04	SW7471B	0.019 mg/kg		0.008	1	12/10/15 16:30	12/11/15 13:04	MWL
Nickel	04	SW6010C	3.60 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:19	BG
Lead	04	SW6010C	7.98 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:19	BG
Antimony	04	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:19	BG
Selenium	04	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:19	BG
Thallium	04	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:19	BG
Zinc	04	SW6010C	25.0 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:19	BG

Volatile Organic Compounds by GCMS

1,1,1,2-Tetrachloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1,1-Trichloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1,2,2-Tetrachloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1,2-Trichloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1-Dichloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1-Dichloroethylene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,1-Dichloropropene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2,3-Trichlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2,3-Trichloropropane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2,4-Trichlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2,4-Trimethylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2-Dibromoethane (EDB)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2-Dichlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2-Dichloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,2-Dichloropropane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,3,5-Trimethylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,3-Dichlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,3-Dichloropropane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
1,4-Dichlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
2,2-Dichloropropane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
2-Butanone (MEK)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
2-Chlorotoluene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
2-Hexanone (MBK)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
4-Chlorotoluene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
4-Isopropyltoluene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
4-Methyl-2-pentanone (MIBK)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Acetone	04RE1	SW8260B	<10.0 ug/kg		10.0	1	12/11/15 17:41	12/11/15 17:41	KCS
Benzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Bromobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Bromochloromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Bromodichloromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Bromoform	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Bromomethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Carbon disulfide	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Carbon tetrachloride	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Chlorobenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Chloroform	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Chloromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
cis-1,2-Dichloroethylene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
cis-1,3-Dichloropropene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Dibromochloromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Dibromomethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Dichlorodifluoromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Di-isopropyl ether (DIPE)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Ethylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Hexachlorobutadiene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Iodomethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Isopropylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
m+p-Xylenes	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Methylene chloride	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Methyl-t-butyl ether (MTBE)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Naphthalene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
n-Butylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
n-Propylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
o-Xylene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
sec-Butylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Styrene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
tert-Butylbenzene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Tetrachloroethylene (PCE)	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Toluene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
trans-1,2-Dichloroethylene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Trichloroethylene	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Trichlorofluoromethane	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Vinyl acetate	04	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 13:34	12/10/15 13:34	MKD
Vinyl chloride	04	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 13:34	12/10/15 13:34	MKD
Xylenes, Total	04	SW8260B	<15.0 ug/kg		15.0	1	12/10/15 13:34	12/10/15 13:34	MKD
Surr: 1,2-Dichloroethane-d4	04	SW8260B	104 %		80-120		12/10/15 13:34	12/10/15 13:34	MKD
Surr: 4-Bromofluorobenzene	04	SW8260B	95.6 %		85-120		12/10/15 13:34	12/10/15 13:34	MKD
Surr: Dibromofluoromethane	04	SW8260B	99.9 %		80-119		12/10/15 13:34	12/10/15 13:34	MKD
Surr: Toluene-d8	04	SW8260B	99.1 %		85-115		12/10/15 13:34	12/10/15 13:34	MKD
Surr: 1,2-Dichloroethane-d4	04RE1	SW8260B	103 %		80-120		12/11/15 17:41	12/11/15 17:41	KCS
Surr: 4-Bromofluorobenzene	04RE1	SW8260B	95.5 %		85-120		12/11/15 17:41	12/11/15 17:41	KCS
Surr: Dibromofluoromethane	04RE1	SW8260B	103 %		80-119		12/11/15 17:41	12/11/15 17:41	KCS
Surr: Toluene-d8	04RE1	SW8260B	101 %		85-115		12/11/15 17:41	12/11/15 17:41	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1,2,4-Trichlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1,2-Dichlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1,2-Diphenylhydrazine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1,3-Dichlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1,4-Dichlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1-Chloronaphthalene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
1-Naphthylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,3,4,6-Tetrachlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,4,5-Trichlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,4,6-Trichlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,4-Dimethylphenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,4-Dinitrophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,4-Dinitrotoluene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,6-Dichlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2,6-Dinitrotoluene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Chloronaphthalene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Chlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Methylnaphthalene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Naphthylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Nitroaniline	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
2-Nitrophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
3,3'-Dichlorobenzidine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
3-Methylcholanthrene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
3-Nitroaniline	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4,6-Dinitro-2-methylphenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Aminobiphenyl	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Bromophenyl phenyl ether	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Chloroaniline	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Chlorophenyl phenyl ether	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Nitroaniline	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
4-Nitrophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
7,12-Dimethylbenz (a) anthracene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Acenaphthene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Acenaphthylene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Acetophenone	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Aniline	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Anthracene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzidine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzo (a) anthracene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzo (a) pyrene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzo (b) fluoranthene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzo (g,h,i) perylene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzo (k) fluoranthene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzoic acid	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Benzyl alcohol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
bis (2-Chloroethoxy) methane	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
bis (2-Chloroethyl) ether	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
bis (2-Chloroisopropyl) ether	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
bis (2-Ethylhexyl) phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Butyl benzyl phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Chrysene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Dibenz (a,h) anthracene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Dibenz (a,j) acridine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Dibenzofuran	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Diethyl phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Dimethyl phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Di-n-butyl phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Di-n-octyl phthalate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Diphenylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Ethyl methanesulfonate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Fluoranthene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Hexachlorobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Hexachlorobutadiene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Hexachlorocyclopentadiene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Hexachloroethane	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Indeno (1,2,3-cd) pyrene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Isophorone	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
m+p-Cresols	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Methyl methanesulfonate	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Naphthalene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Nitrobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
n-Nitrosodimethylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
n-Nitrosodi-n-butylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
n-Nitrosodi-n-propylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
n-Nitrosodiphenylamine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
n-Nitrosopiperidine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
o+m+p-Cresols	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
o-Cresol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
p-(Dimethylamino) azobenzene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
p-Chloro-m-cresol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Pentachloronitrobenzene (quintozone)	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Pentachlorophenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Phenacetin	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Phenanthrene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Phenol	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Pyrene	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
Pyridine	04	SW8270D	<83.3 ug/kg		83.3	1	12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	04	SW8270D	82.0 %		35-125		12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: 2-Fluorobiphenyl</i>	04	SW8270D	62.4 %		45-105		12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: 2-Fluorophenol</i>	04	SW8270D	65.9 %		35-105		12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: Nitrobenzene-d5</i>	04	SW8270D	65.0 %		35-100		12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: Phenol-d5</i>	04	SW8270D	62.4 %		40-100		12/11/15 10:10	12/11/15 16:51	JHV
<i>Surr: p-Terphenyl-d14</i>	04	SW8270D	89.4 %		30-125		12/11/15 10:10	12/11/15 16:51	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	04	SW8015C	<10.0 mg/kg		10.0	1	12/10/15 16:02	12/11/15 16:01	JHV
<i>Surr: Pentacosane</i>	04	SW8015C	70.0 %		40-160		12/10/15 16:02	12/11/15 16:01	JHV
TPH-Semi-Volatiles (ORO)	04	SW8015C	<10.0 mg/kg		10.0	1	12/09/15 15:02	12/10/15 18:32	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1221	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1232	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1242	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1248	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1254	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
PCB as Aroclor 1260	04	SW8082A	<0.118 mg/kg dry		0.118	1	12/09/15 15:33	12/10/15 17:52	SKS
<i>Surr: DCB</i>	04	SW8082A	95.0 %		30-105		12/09/15 15:33	12/10/15 17:52	SKS
<i>Surr: TCMX</i>	04	SW8082A	75.0 %		30-105		12/09/15 15:33	12/10/15 17:52	SKS



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB4 Laboratory Sample ID: 15L0217-04

Date/Time Sampled: 12/07/2015 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Wet Chemistry Analysis									
Percent Solids	04	SM18 2540G	79.7 %		0.10	1	12/10/15 13:52	12/10/15 13:52	KEW



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	05	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:17	BG
Arsenic	05	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 12:17	BG
Beryllium	05	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:17	BG
Cadmium	05	SW6010C	0.688 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:17	BG
Chromium	05	SW6010C	7.57 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:17	BG
Copper	05	SW6010C	5.71 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:17	BG
Mercury	05	SW7471B	0.024 mg/kg		0.008	1	12/10/15 16:30	12/11/15 13:10	MWL
Nickel	05	SW6010C	3.64 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:17	BG
Lead	05	SW6010C	8.87 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:17	BG
Antimony	05	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 12:17	BG
Selenium	05	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:17	BG
Thallium	05	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:17	BG
Zinc	05	SW6010C	22.0 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:17	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1,1-Trichloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1,2,2-Tetrachloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1,2-Trichloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1-Dichloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1-Dichloroethylene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,1-Dichloropropene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2,3-Trichlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2,3-Trichloropropane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2,4-Trichlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2,4-Trimethylbenzene	05RE2	SW8260B	26.3 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2-Dibromoethane (EDB)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2-Dichlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2-Dichloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,2-Dichloropropane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,3,5-Trimethylbenzene	05RE2	SW8260B	11.2 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,3-Dichlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,3-Dichloropropane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
1,4-Dichlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
2,2-Dichloropropane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
2-Butanone (MEK)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
2-Chlorotoluene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
2-Hexanone (MBK)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
4-Chlorotoluene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
4-Isopropyltoluene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
4-Methyl-2-pentanone (MIBK)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Acetone	05RE2	SW8260B	16.2 ug/kg		10.0	1	12/10/15 17:08	12/10/15 17:08	MKD
Benzene	05RE2	SW8260B	100 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Bromobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Bromochloromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Bromodichloromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Bromoform	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Bromomethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Carbon disulfide	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Carbon tetrachloride	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Chlorobenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Chloroform	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Chloromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
cis-1,2-Dichloroethylene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
cis-1,3-Dichloropropene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Dibromochloromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Dibromomethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Dichlorodifluoromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Di-isopropyl ether (DIPE)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Ethylbenzene	05RE2	SW8260B	8.27 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Hexachlorobutadiene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Iodomethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Isopropylbenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
m+p-Xylenes	05RE2	SW8260B	73.4 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Methylene chloride	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Methyl-t-butyl ether (MTBE)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Naphthalene	05RE1	SW8260B	8270 ug/kg		250	50	12/10/15 15:33	12/10/15 15:33	MKD
n-Butylbenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
n-Propylbenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
o-Xylene	05RE2	SW8260B	29.0 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
sec-Butylbenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Styrene	05RE2	SW8260B	11.6 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
tert-Butylbenzene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Tetrachloroethylene (PCE)	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Toluene	05RE2	SW8260B	113 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
trans-1,2-Dichloroethylene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Trichloroethylene	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Trichlorofluoromethane	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Vinyl acetate	05RE2	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 17:08	12/10/15 17:08	MKD
Vinyl chloride	05RE2	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 17:08	12/10/15 17:08	MKD
Xylenes, Total	05RE2	SW8260B	102 ug/kg		15.0	1	12/10/15 17:08	12/10/15 17:08	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	05RE1	SW8260B	97.5 %		80-120		12/10/15 15:33	12/10/15 15:33	MKD
<i>Surr: 4-Bromofluorobenzene</i>	05RE1	SW8260B	99.6 %		85-120		12/10/15 15:33	12/10/15 15:33	MKD
<i>Surr: Dibromofluoromethane</i>	05RE1	SW8260B	94.3 %		80-119		12/10/15 15:33	12/10/15 15:33	MKD
<i>Surr: Toluene-d8</i>	05RE1	SW8260B	99.8 %		85-115		12/10/15 15:33	12/10/15 15:33	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	05RE2	SW8260B	108 %		80-120		12/10/15 17:08	12/10/15 17:08	MKD
<i>Surr: 4-Bromofluorobenzene</i>	05RE2	SW8260B	93.7 %		85-120		12/10/15 17:08	12/10/15 17:08	MKD
<i>Surr: Dibromofluoromethane</i>	05RE2	SW8260B	95.7 %		80-119		12/10/15 17:08	12/10/15 17:08	MKD
<i>Surr: Toluene-d8</i>	05RE2	SW8260B	95.4 %		85-115		12/10/15 17:08	12/10/15 17:08	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1,2,4-Trichlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1,2-Dichlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1,2-Diphenylhydrazine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1,3-Dichlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1,4-Dichlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1-Chloronaphthalene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
1-Naphthylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,3,4,6-Tetrachlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,4,5-Trichlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,4,6-Trichlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,4-Dimethylphenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,4-Dinitrophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,4-Dinitrotoluene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,6-Dichlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2,6-Dinitrotoluene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Chloronaphthalene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Chlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Methylnaphthalene	05	SW8270D	3360 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Naphthylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Nitroaniline	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
2-Nitrophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
3,3'-Dichlorobenzidine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
3-Methylcholanthrene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
3-Nitroaniline	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4,6-Dinitro-2-methylphenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Aminobiphenyl	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Bromophenyl phenyl ether	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Chloroaniline	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Chlorophenyl phenyl ether	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Nitroaniline	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
4-Nitrophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
7,12-Dimethylbenz (a) anthracene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Acenaphthene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Acenaphthylene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Acetophenone	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results		Laboratory Sample ID: 15L0217-05								
Sample I.D.	SB6	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS										
Aniline	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Anthracene	05	SW8270D		1770 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzidine	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzo (a) anthracene	05	SW8270D		1700 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzo (a) pyrene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzo (b) fluoranthene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzo (g,h,i) perylene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzo (k) fluoranthene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzoic acid	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Benzyl alcohol	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
bis (2-Chloroethoxy) methane	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
bis (2-Chloroethyl) ether	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
bis (2-Chloroisopropyl) ether	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
bis (2-Ethylhexyl) phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Butyl benzyl phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Chrysene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Dibenz (a,h) anthracene	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Dibenz (a,j) acridine	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Dibenzofuran	05	SW8270D		2230 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Diethyl phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Dimethyl phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Di-n-butyl phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Di-n-octyl phthalate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Diphenylamine	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Ethyl methanesulfonate	05	SW8270D		<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Fluoranthene	05	SW8270D		3630 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	05	SW8270D	2290 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Hexachlorobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Hexachlorobutadiene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Hexachlorocyclopentadiene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Hexachloroethane	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Indeno (1,2,3-cd) pyrene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Isophorone	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
m+p-Cresols	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Methyl methanesulfonate	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Naphthalene	05	SW8270D	9230 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Nitrobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
n-Nitrosodimethylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
n-Nitrosodi-n-butylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
n-Nitrosodi-n-propylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
n-Nitrosodiphenylamine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
n-Nitrosopiperidine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
o+m+p-Cresols	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
o-Cresol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
p-(Dimethylamino) azobenzene	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
p-Chloro-m-cresol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Pentachloronitrobenzene (quintozone)	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Pentachlorophenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Phenacetin	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Phenanthrene	05	SW8270D	6650 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Phenol	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	SB6	Laboratory Sample ID: 15L0217-05							
Date/Time Sampled: 12/07/2015 12:45									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Pyrene	05	SW8270D	3470 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
Pyridine	05	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	05	SW8270D	6.44 %	DS	35-125		12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: 2-Fluorobiphenyl</i>	05	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: 2-Fluorophenol</i>	05	SW8270D	48.0 %		35-105		12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: Nitrobenzene-d5</i>	05	SW8270D	48.5 %		35-100		12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: Phenol-d5</i>	05	SW8270D	45.6 %		40-100		12/11/15 10:10	12/11/15 18:47	JHV
<i>Surr: p-Terphenyl-d14</i>	05	SW8270D	9.20 %	DS	30-125		12/11/15 10:10	12/11/15 18:47	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	05	SW8015C	4980 mg/kg		231	25	12/10/15 16:02	12/11/15 16:28	JHV
<i>Surr: Pentacosane</i>	05	SW8015C	305 %	DS	40-160		12/10/15 16:02	12/11/15 16:28	JHV
TPH-Semi-Volatiles (ORO)	05	SW8015C	8100 mg/kg		250	25	12/09/15 15:02	12/10/15 18:57	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1221	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1232	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1242	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1248	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1254	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
PCB as Aroclor 1260	05	SW8082A	<0.117 mg/kg dry		0.117	1	12/09/15 15:33	12/10/15 18:48	SKS
<i>Surr: DCB</i>	05	SW8082A	60.0 %		30-105		12/09/15 15:33	12/10/15 18:48	SKS
<i>Surr: TCMX</i>	05	SW8082A	45.0 %		30-105		12/09/15 15:33	12/10/15 18:48	SKS



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB6 Laboratory Sample ID: 15L0217-05

Date/Time Sampled: 12/07/2015 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Wet Chemistry Analysis									
Percent Solids	05	SM18 2540G	82.9 %		0.10	1	12/10/15 13:54	12/10/15 13:54	KEW



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	06	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:23	BG
Arsenic	06RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:33	BG
Beryllium	06	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:23	BG
Cadmium	06	SW6010C	1.80 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:23	BG
Chromium	06	SW6010C	12.8 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:23	BG
Copper	06	SW6010C	10.2 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:23	BG
Mercury	06	SW7471B	0.062 mg/kg		0.008	1	12/10/15 16:30	12/11/15 13:17	MWL
Nickel	06	SW6010C	8.47 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:23	BG
Lead	06	SW6010C	10.4 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:23	BG
Antimony	06	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:23	BG
Selenium	06	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:23	BG
Thallium	06	SW6010C	3.01 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:23	BG
Zinc	06	SW6010C	35.7 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:23	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1,1-Trichloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1,2,2-Tetrachloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1,2-Trichloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1-Dichloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1-Dichloroethylene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,1-Dichloropropene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2,3-Trichlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2,3-Trichloropropane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2,4-Trichlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2,4-Trimethylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2-Dibromoethane (EDB)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2-Dichlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2-Dichloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,2-Dichloropropane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,3,5-Trimethylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,3-Dichlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,3-Dichloropropane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
1,4-Dichlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
2,2-Dichloropropane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
2-Butanone (MEK)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
2-Chlorotoluene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
2-Hexanone (MBK)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
4-Chlorotoluene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
4-Isopropyltoluene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
4-Methyl-2-pentanone (MIBK)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Acetone	06	SW8260B	<47.2 ug/kg		47.2	1	12/10/15 14:45	12/10/15 14:45	MKD
Benzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Bromobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Bromochloromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Bromodichloromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Bromoform	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Bromomethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Carbon disulfide	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Carbon tetrachloride	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Chlorobenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Chloroform	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Chloromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
cis-1,2-Dichloroethylene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
cis-1,3-Dichloropropene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Dibromochloromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Dibromomethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Dichlorodifluoromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Di-isopropyl ether (DIPE)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Ethylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Hexachlorobutadiene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Iodomethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Isopropylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
m+p-Xylenes	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Methylene chloride	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Methyl-t-butyl ether (MTBE)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Naphthalene	06	SW8260B	150 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
n-Butylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
n-Propylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
o-Xylene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
sec-Butylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Styrene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
tert-Butylbenzene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Tetrachloroethylene (PCE)	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Toluene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
trans-1,2-Dichloroethylene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Volatile Organic Compounds by GCMS

trans-1,3-Dichloropropene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Trichloroethylene	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Trichlorofluoromethane	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Vinyl acetate	06	SW8260B	<47.2 ug/kg		47.2	1	12/10/15 14:45	12/10/15 14:45	MKD
Vinyl chloride	06	SW8260B	<23.6 ug/kg		23.6	1	12/10/15 14:45	12/10/15 14:45	MKD
Xylenes, Total	06	SW8260B	<70.8 ug/kg		70.8	1	12/10/15 14:45	12/10/15 14:45	MKD
Surr: 1,2-Dichloroethane-d4	06	SW8260B	95.8 %		80-120		12/10/15 14:45	12/10/15 14:45	MKD
Surr: 4-Bromofluorobenzene	06	SW8260B	95.4 %		85-120		12/10/15 14:45	12/10/15 14:45	MKD
Surr: Dibromofluoromethane	06	SW8260B	102 %		80-119		12/10/15 14:45	12/10/15 14:45	MKD
Surr: Toluene-d8	06	SW8260B	98.6 %		85-115		12/10/15 14:45	12/10/15 14:45	MKD

Semivolatile Organic Compounds by GCMS

1,2,4,5-Tetrachlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1,2,4-Trichlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1,2-Dichlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1,2-Diphenylhydrazine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1,3-Dichlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1,4-Dichlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1-Chloronaphthalene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
1-Naphthylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,3,4,6-Tetrachlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4,5-Trichlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4,6-Trichlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4-Dichlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4-Dimethylphenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4-Dinitrophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,4-Dinitrotoluene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2,6-Dinitrotoluene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Chloronaphthalene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Chlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Methylnaphthalene	06	SW8270D	2820 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Naphthylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Nitroaniline	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
2-Nitrophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
3,3'-Dichlorobenzidine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
3-Methylcholanthrene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
3-Nitroaniline	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4,6-Dinitro-2-methylphenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Aminobiphenyl	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Bromophenyl phenyl ether	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Chloroaniline	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Chlorophenyl phenyl ether	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Nitroaniline	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
4-Nitrophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
7,12-Dimethylbenz (a) anthracene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Acenaphthene	06	SW8270D	2060 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Acenaphthylene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Acetophenone	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Aniline	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Anthracene	06	SW8270D	5250 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzidine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzo (a) anthracene	06	SW8270D	3800 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	06	SW8270D	3050 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzo (b) fluoranthene	06	SW8270D	3640 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzo (g,h,i) perylene	06	SW8270D	1840 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzo (k) fluoranthene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzoic acid	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Benzyl alcohol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
bis (2-Chloroethoxy) methane	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
bis (2-Chloroethyl) ether	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
bis (2-Chloroisopropyl) ether	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
bis (2-Ethylhexyl) phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Butyl benzyl phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Chrysene	06	SW8270D	3580 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Dibenz (a,h) anthracene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Dibenz (a,j) acridine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Dibenzofuran	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Diethyl phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Dimethyl phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Di-n-butyl phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Di-n-octyl phthalate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Diphenylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Ethyl methanesulfonate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Fluoranthene	06	SW8270D	12000 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Fluorene	06	SW8270D	4300 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Hexachlorobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Hexachlorobutadiene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Hexachlorocyclopentadiene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Indeno (1,2,3-cd) pyrene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Isophorone	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
m+p-Cresols	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Methyl methanesulfonate	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Naphthalene	06	SW8270D	11700 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Nitrobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
n-Nitrosodimethylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
n-Nitrosodi-n-butylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
n-Nitrosodi-n-propylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
n-Nitrosodiphenylamine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
n-Nitrosopiperidine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
o+m+p-Cresols	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
o-Cresol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
p-(Dimethylamino) azobenzene	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
p-Chloro-m-cresol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Pentachloronitrobenzene (quintozone)	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Pentachlorophenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Phenacetin	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Phenanthrene	06	SW8270D	16800 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Phenol	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Pronamide	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Pyrene	06	SW8270D	8830 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Pyridine	06	SW8270D	<1630 ug/kg		1630	20	12/11/15 10:10	12/11/15 19:25	JHV
Surr: 2,4,6-Tribromophenol	06	SW8270D	22.0 %	DS	35-125		12/11/15 10:10	12/11/15 19:25	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB8 Laboratory Sample ID: 15L0217-06

Date/Time Sampled: 12/07/2015 14:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	06	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 19:25	JHV
Surr: 2-Fluorophenol	06	SW8270D	56.2 %		35-105		12/11/15 10:10	12/11/15 19:25	JHV
Surr: Nitrobenzene-d5	06	SW8270D	82.9 %		35-100		12/11/15 10:10	12/11/15 19:25	JHV
Surr: Phenol-d5	06	SW8270D	55.5 %		40-100		12/11/15 10:10	12/11/15 19:25	JHV
Surr: p-Terphenyl-d14	06	SW8270D	22.8 %	DS	30-125		12/11/15 10:10	12/11/15 19:25	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	06RE1	SW8015C	13.9 mg/kg		10.0	1	12/10/15 16:02	12/14/15 15:34	JHV
Surr: Pentacosane	06RE1	SW8015C	62.5 %		40-160		12/10/15 16:02	12/14/15 15:34	JHV
TPH-Semi-Volatiles (ORO)	06	SW8015C	16300 mg/kg		411	25	12/09/15 15:02	12/10/15 19:22	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1221	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1232	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1242	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1248	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1254	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
PCB as Aroclor 1260	06	SW8082A	<0.116 mg/kg dry		0.116	1	12/10/15 13:30	12/11/15 09:43	SKS
Surr: DCB	06	SW8082A	90.0 %		30-105		12/10/15 13:30	12/11/15 09:43	SKS
Surr: TCMX	06	SW8082A	50.0 %		30-105		12/10/15 13:30	12/11/15 09:43	SKS
Wet Chemistry Analysis									
Percent Solids	06	SM18 2540G	85.4 %		0.10	1	12/10/15 13:56	12/10/15 13:56	KEW



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Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB9 Laboratory Sample ID: 15L0217-07

Date/Time Sampled: 12/07/2015 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 6000/7000 Series Methods

Silver	07	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:28	BG
Arsenic	07RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:38	BG
Beryllium	07	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:28	BG
Cadmium	07	SW6010C	1.85 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:28	BG
Chromium	07	SW6010C	23.2 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:28	BG
Copper	07	SW6010C	107 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:28	BG
Mercury	07RE1	SW7471B	0.397 mg/kg		0.078	10	12/10/15 16:30	12/11/15 13:49	MWL
Nickel	07	SW6010C	9.84 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:28	BG
Lead	07	SW6010C	293 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:28	BG
Antimony	07	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:28	BG
Selenium	07	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:28	BG
Thallium	07	SW6010C	3.84 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:28	BG
Zinc	07	SW6010C	216 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:28	BG

Volatile Organic Compounds by GCMS

1,1,1,2-Tetrachloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1,1-Trichloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1,2,2-Tetrachloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1,2-Trichloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1-Dichloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1-Dichloroethylene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,1-Dichloropropene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2,3-Trichlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2,3-Trichloropropane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2,4-Trichlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2,4-Trimethylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	SB9	Laboratory Sample ID: 15L0217-07							
Date/Time Sampled: 12/07/2015 14:40									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2-Dibromoethane (EDB)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2-Dichlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2-Dichloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,2-Dichloropropane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,3,5-Trimethylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,3-Dichlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,3-Dichloropropane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
1,4-Dichlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
2,2-Dichloropropane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
2-Butanone (MEK)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
2-Chlorotoluene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
2-Hexanone (MBK)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
4-Chlorotoluene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
4-Isopropyltoluene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
4-Methyl-2-pentanone (MIBK)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Acetone	07	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 14:21	12/10/15 14:21	MKD
Benzene	07	SW8260B	10.6 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Bromobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Bromochloromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Bromodichloromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Bromoform	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Bromomethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Carbon disulfide	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Carbon tetrachloride	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Chlorobenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB9 Laboratory Sample ID: 15L0217-07

Date/Time Sampled: 12/07/2015 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Chloroform	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Chloromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
cis-1,2-Dichloroethylene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
cis-1,3-Dichloropropene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Dibromochloromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Dibromomethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Dichlorodifluoromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Di-isopropyl ether (DIPE)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Ethylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Hexachlorobutadiene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Iodomethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Isopropylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
m+p-Xylenes	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Methylene chloride	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Methyl-t-butyl ether (MTBE)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Naphthalene	07	SW8260B	90.6 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
n-Butylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
n-Propylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
o-Xylene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
sec-Butylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Styrene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
tert-Butylbenzene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Tetrachloroethylene (PCE)	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Toluene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
trans-1,2-Dichloroethylene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB9 Laboratory Sample ID: 15L0217-07

Date/Time Sampled: 12/07/2015 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Volatile Organic Compounds by GCMS

trans-1,3-Dichloropropene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Trichloroethylene	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Trichlorofluoromethane	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Vinyl acetate	07	SW8260B	<10.0 ug/kg		10.0	1	12/10/15 14:21	12/10/15 14:21	MKD
Vinyl chloride	07	SW8260B	<5.00 ug/kg		5.00	1	12/10/15 14:21	12/10/15 14:21	MKD
Xylenes, Total	07	SW8260B	<15.0 ug/kg		15.0	1	12/10/15 14:21	12/10/15 14:21	MKD
Surr: 1,2-Dichloroethane-d4	07	SW8260B	104 %		80-120		12/10/15 14:21	12/10/15 14:21	MKD
Surr: 4-Bromofluorobenzene	07	SW8260B	92.3 %		85-120		12/10/15 14:21	12/10/15 14:21	MKD
Surr: Dibromofluoromethane	07	SW8260B	101 %		80-119		12/10/15 14:21	12/10/15 14:21	MKD
Surr: Toluene-d8	07	SW8260B	100 %		85-115		12/10/15 14:21	12/10/15 14:21	MKD

Semivolatile Organic Compounds by GCMS

1,2,4,5-Tetrachlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1,2,4-Trichlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1,2-Dichlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1,2-Diphenylhydrazine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1,3-Dichlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1,4-Dichlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1-Chloronaphthalene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
1-Naphthylamine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,3,4,6-Tetrachlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4,5-Trichlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4,6-Trichlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4-Dichlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4-Dimethylphenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4-Dinitrophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,4-Dinitrotoluene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	SB9	Laboratory Sample ID: 15L0217-07							
Date/Time Sampled: 12/07/2015 14:40									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2,6-Dinitrotoluene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Chloronaphthalene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Chlorophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Methylnaphthalene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Naphthylamine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Nitroaniline	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
2-Nitrophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
3,3'-Dichlorobenzidine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
3-Methylcholanthrene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
3-Nitroaniline	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4,6-Dinitro-2-methylphenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Aminobiphenyl	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Bromophenyl phenyl ether	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Chloroaniline	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Chlorophenyl phenyl ether	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Nitroaniline	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
4-Nitrophenol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
7,12-Dimethylbenz (a) anthracene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Acenaphthene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Acenaphthylene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Acetophenone	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Aniline	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Anthracene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzidine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzo (a) anthracene	07	SW8270D	4530 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB9 Laboratory Sample ID: 15L0217-07

Date/Time Sampled: 12/07/2015 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	07	SW8270D	7830 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzo (b) fluoranthene	07	SW8270D	7970 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzo (g,h,i) perylene	07	SW8270D	4660 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzo (k) fluoranthene	07	SW8270D	3020 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzoic acid	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Benzyl alcohol	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
bis (2-Chloroethoxy) methane	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
bis (2-Chloroethyl) ether	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
bis (2-Chloroisopropyl) ether	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
bis (2-Ethylhexyl) phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Butyl benzyl phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Chrysene	07	SW8270D	4990 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Dibenz (a,h) anthracene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Dibenz (a,j) acridine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Dibenzofuran	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Diethyl phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Dimethyl phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Di-n-butyl phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Di-n-octyl phthalate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Diphenylamine	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Ethyl methanesulfonate	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Fluoranthene	07	SW8270D	3640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Fluorene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Hexachlorobenzene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Hexachlorobutadiene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Hexachlorocyclopentadiene	07	SW8270D	<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results		Laboratory Sample ID: 15L0217-07								
Sample I.D.	SB9	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS										
Hexachloroethane	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Indeno (1,2,3-cd) pyrene	07	SW8270D		3790 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Isophorone	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
m+p-Cresols	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Methyl methanesulfonate	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Naphthalene	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Nitrobenzene	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
n-Nitrosodimethylamine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
n-Nitrosodi-n-butylamine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
n-Nitrosodi-n-propylamine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
n-Nitrosodiphenylamine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
n-Nitrosopiperidine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
o+m+p-Cresols	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
o-Cresol	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
p-(Dimethylamino)azobenzene	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
p-Chloro-m-cresol	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Pentachloronitrobenzene (quintozone)	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Pentachlorophenol	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Phenacetin	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Phenanthrene	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Phenol	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Pronamide	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Pyrene	07	SW8270D		5220 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
Pyridine	07	SW8270D		<1640 ug/kg		1640	20	12/11/15 10:10	12/11/15 20:04	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	07	SW8270D		20.9 %	DS	35-125		12/11/15 10:10	12/11/15 20:04	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB9 Laboratory Sample ID: 15L0217-07

Date/Time Sampled: 12/07/2015 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	07	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 20:04	JHV
Surr: 2-Fluorophenol	07	SW8270D	52.5 %		35-105		12/11/15 10:10	12/11/15 20:04	JHV
Surr: Nitrobenzene-d5	07	SW8270D	63.8 %		35-100		12/11/15 10:10	12/11/15 20:04	JHV
Surr: Phenol-d5	07	SW8270D	53.7 %		40-100		12/11/15 10:10	12/11/15 20:04	JHV
Surr: p-Terphenyl-d14	07	SW8270D	24.5 %	DS	30-125		12/11/15 10:10	12/11/15 20:04	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	07	SW8015C	1560 mg/kg		249	25	12/10/15 16:02	12/11/15 17:21	JHV
Surr: Pentacosane	07	SW8015C	262 %	DS	40-160		12/10/15 16:02	12/11/15 17:21	JHV
TPH-Semi-Volatiles (ORO)	07	SW8015C	1870 mg/kg		243	25	12/09/15 15:02	12/10/15 19:48	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1221	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1232	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1242	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1248	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1254	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
PCB as Aroclor 1260	07	SW8082A	<0.133 mg/kg dry		0.133	1	12/10/15 13:30	12/11/15 10:02	SKS
Surr: DCB	07	SW8082A	95.0 %		30-105		12/10/15 13:30	12/11/15 10:02	SKS
Surr: TCMX	07	SW8082A	75.0 %		30-105		12/10/15 13:30	12/11/15 10:02	SKS
Wet Chemistry Analysis									
Percent Solids	07	SM18 2540G	74.4 %		0.10	1	12/10/15 13:58	12/10/15 13:58	KEW



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB10 Laboratory Sample ID: 15L0217-08

Date/Time Sampled: 12/07/2015 14:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	08	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:33	BG
Arsenic	08RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:44	BG
Beryllium	08	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:32	BG
Cadmium	08	SW6010C	1.84 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:33	BG
Chromium	08	SW6010C	8.01 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:33	BG
Copper	08	SW6010C	15.9 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:33	BG
Mercury	08	SW7471B	0.053 mg/kg		0.008	1	12/10/15 16:30	12/11/15 13:22	MWL
Nickel	08	SW6010C	8.22 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:33	BG
Lead	08	SW6010C	27.0 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:33	BG
Antimony	08	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:33	BG
Selenium	08	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:33	BG
Thallium	08	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:33	BG
Zinc	08	SW6010C	211 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:33	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1,1-Trichloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1,2,2-Tetrachloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1,2-Trichloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1-Dichloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1-Dichloroethylene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,1-Dichloropropene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2,3-Trichlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2,3-Trichloropropane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2,4-Trichlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2,4-Trimethylbenzene	08	SW8260B	2300 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB10 Laboratory Sample ID: 15L0217-08

Date/Time Sampled: 12/07/2015 14:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2-Dibromoethane (EDB)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2-Dichlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2-Dichloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,2-Dichloropropane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,3,5-Trimethylbenzene	08	SW8260B	1540 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,3-Dichlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,3-Dichloropropane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
1,4-Dichlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
2,2-Dichloropropane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
2-Butanone (MEK)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
2-Chlorotoluene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
2-Hexanone (MBK)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
4-Chlorotoluene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
4-Isopropyltoluene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
4-Methyl-2-pentanone (MIBK)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Acetone	08	SW8260B	<500 ug/kg		500	50	12/10/15 16:20	12/10/15 16:20	MKD
Benzene	08	SW8260B	399 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Bromobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Bromochloromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Bromodichloromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Bromoform	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Bromomethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Carbon disulfide	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Carbon tetrachloride	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Chlorobenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB10 Laboratory Sample ID: 15L0217-08

Date/Time Sampled: 12/07/2015 14:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Chloroform	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Chloromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
cis-1,2-Dichloroethylene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
cis-1,3-Dichloropropene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Dibromochloromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Dibromomethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Dichlorodifluoromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Di-isopropyl ether (DIPE)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Ethylbenzene	08	SW8260B	4580 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Hexachlorobutadiene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Iodomethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Isopropylbenzene	08	SW8260B	561 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
m+p-Xylenes	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Methylene chloride	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Methyl-t-butyl ether (MTBE)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Naphthalene	08RE2	SW8260B	265000 ug/kg		9990	2000	12/13/15 20:31	12/13/15 20:31	KCS
n-Butylbenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
n-Propylbenzene	08	SW8260B	362 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
o-Xylene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
sec-Butylbenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Styrene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
tert-Butylbenzene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Tetrachloroethylene (PCE)	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Toluene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
trans-1,2-Dichloroethylene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB10 Laboratory Sample ID: 15L0217-08

Date/Time Sampled: 12/07/2015 14:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Trichloroethylene	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Trichlorofluoromethane	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Vinyl acetate	08	SW8260B	<500 ug/kg		500	50	12/10/15 16:20	12/10/15 16:20	MKD
Vinyl chloride	08	SW8260B	<250 ug/kg		250	50	12/10/15 16:20	12/10/15 16:20	MKD
Xylenes, Total	08	SW8260B	<749 ug/kg		749	50	12/10/15 16:20	12/10/15 16:20	MKD
Surr: 1,2-Dichloroethane-d4	08	SW8260B	96.0 %		80-120		12/10/15 16:20	12/10/15 16:20	MKD
Surr: 4-Bromofluorobenzene	08	SW8260B	99.5 %		85-120		12/10/15 16:20	12/10/15 16:20	MKD
Surr: Dibromofluoromethane	08	SW8260B	88.9 %		80-119		12/10/15 16:20	12/10/15 16:20	MKD
Surr: Toluene-d8	08	SW8260B	98.6 %		85-115		12/10/15 16:20	12/10/15 16:20	MKD
Surr: 1,2-Dichloroethane-d4	08RE2	SW8260B	93.3 %		80-120		12/13/15 20:31	12/13/15 20:31	KCS
Surr: 4-Bromofluorobenzene	08RE2	SW8260B	95.2 %		85-120		12/13/15 20:31	12/13/15 20:31	KCS
Surr: Dibromofluoromethane	08RE2	SW8260B	94.4 %		80-119		12/13/15 20:31	12/13/15 20:31	KCS
Surr: Toluene-d8	08RE2	SW8260B	97.9 %		85-115		12/13/15 20:31	12/13/15 20:31	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1,2,4-Trichlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1,2-Dichlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1,2-Diphenylhydrazine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1,3-Dichlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1,4-Dichlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1-Chloronaphthalene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
1-Naphthylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,3,4,6-Tetrachlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,4,5-Trichlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,4,6-Trichlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	Laboratory Sample ID: 15L0217-08								
Date/Time Sampled: 12/07/2015 14:55									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,4-Dimethylphenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,4-Dinitrophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,4-Dinitrotoluene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,6-Dichlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2,6-Dinitrotoluene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Chloronaphthalene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Chlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Methylnaphthalene	08	SW8270D	53500 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Naphthylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Nitroaniline	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
2-Nitrophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
3,3'-Dichlorobenzidine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
3-Methylcholanthrene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
3-Nitroaniline	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4,6-Dinitro-2-methylphenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Aminobiphenyl	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Bromophenyl phenyl ether	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Chloroaniline	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Chlorophenyl phenyl ether	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Nitroaniline	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
4-Nitrophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
7,12-Dimethylbenz (a)anthracene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Acenaphthene	08	SW8270D	3090 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Acenaphthylene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Acetophenone	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results		Laboratory Sample ID: 15L0217-08								
Sample I.D.	SB10	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS										
Aniline	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Anthracene	08	SW8270D		4180 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzidine	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzo (a) anthracene	08	SW8270D		7240 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzo (a) pyrene	08	SW8270D		8500 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzo (b) fluoranthene	08	SW8270D		10200 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzo (g,h,i) perylene	08	SW8270D		4890 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzo (k) fluoranthene	08	SW8270D		3340 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzoic acid	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Benzyl alcohol	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
bis (2-Chloroethoxy) methane	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
bis (2-Chloroethyl) ether	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
bis (2-Chloroisopropyl) ether	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
bis (2-Ethylhexyl) phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Butyl benzyl phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Chrysene	08	SW8270D		6480 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Dibenz (a,h) anthracene	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Dibenz (a,j) acridine	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Dibenzofuran	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Diethyl phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Dimethyl phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Di-n-butyl phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Di-n-octyl phthalate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Diphenylamine	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Ethyl methanesulfonate	08	SW8270D		<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Fluoranthene	08	SW8270D		10500 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	Laboratory Sample ID: 15L0217-08								
Date/Time Sampled: 12/07/2015 14:55									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	08	SW8270D	4150 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Hexachlorobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Hexachlorobutadiene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Hexachlorocyclopentadiene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Hexachloroethane	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Indeno (1,2,3-cd) pyrene	08	SW8270D	4460 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Isophorone	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
m+p-Cresols	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Methyl methanesulfonate	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Naphthalene	08RE1	SW8270D	235000 ug/kg		8300	100	12/11/15 10:10	12/14/15 14:38	JHV
Nitrobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
n-Nitrosodimethylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
n-Nitrosodi-n-butylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
n-Nitrosodi-n-propylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
n-Nitrosodiphenylamine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
n-Nitrosopiperidine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
o+m+p-Cresols	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
o-Cresol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
p-(Dimethylamino)azobenzene	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
p-Chloro-m-cresol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Pentachloronitrobenzene (quintozone)	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Pentachlorophenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Phenacetin	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Phenanthrene	08	SW8270D	13400 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Phenol	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	Laboratory Sample ID: 15L0217-08								
Date/Time Sampled: 12/07/2015 14:55									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Pyrene	08	SW8270D	10800 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
Pyridine	08	SW8270D	<1660 ug/kg		1660	20	12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	08	SW8270D	87.0 %		35-125		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: 2-Fluorobiphenyl</i>	08	SW8270D	11.9 %	DS	45-105		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: 2-Fluorophenol</i>	08	SW8270D	90.9 %		35-105		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: Nitrobenzene-d5</i>	08	SW8270D	1.32 %	DS	35-100		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: Phenol-d5</i>	08	SW8270D	92.1 %		40-100		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: p-Terphenyl-d14</i>	08	SW8270D	113 %		30-125		12/11/15 10:10	12/11/15 20:43	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	08RE1	SW8270D	%	DS	35-125		12/11/15 10:10	12/14/15 14:38	JHV
<i>Surr: 2-Fluorobiphenyl</i>	08RE1	SW8270D	%	DS	45-105		12/11/15 10:10	12/14/15 14:38	JHV
<i>Surr: 2-Fluorophenol</i>	08RE1	SW8270D	81.6 %		35-105		12/11/15 10:10	12/14/15 14:38	JHV
<i>Surr: Nitrobenzene-d5</i>	08RE1	SW8270D	103 %	DS	35-100		12/11/15 10:10	12/14/15 14:38	JHV
<i>Surr: Phenol-d5</i>	08RE1	SW8270D	84.7 %		40-100		12/11/15 10:10	12/14/15 14:38	JHV
<i>Surr: p-Terphenyl-d14</i>	08RE1	SW8270D	%	DS	30-125		12/11/15 10:10	12/14/15 14:38	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	08	SW8015C	567 mg/kg		23.6	1	12/10/15 16:02	12/11/15 17:47	JHV
<i>Surr: Pentacosane</i>	08	SW8015C	74.8 %		40-160		12/10/15 16:02	12/11/15 17:47	JHV
TPH-Semi-Volatiles (ORO)	08	SW8015C	355 mg/kg		235	25	12/09/15 15:02	12/10/15 20:13	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
PCB as Aroclor 1221	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
PCB as Aroclor 1232	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
PCB as Aroclor 1242	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
PCB as Aroclor 1248	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
PCB as Aroclor 1254	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	Laboratory Sample ID: 15L0217-08								
Date/Time Sampled: 12/07/2015 14:55									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1260	08	SW8082A	<0.115 mg/kg dry		0.115	1	12/10/15 13:30	12/11/15 10:20	SKS
<i>Surr: DCB</i>	08	SW8082A	90.0 %		30-105		12/10/15 13:30	12/11/15 10:20	SKS
<i>Surr: TCMX</i>	08	SW8082A	35.0 %		30-105		12/10/15 13:30	12/11/15 10:20	SKS
Wet Chemistry Analysis									
Percent Solids	08	SM18 2540G	86.8 %		0.10	1	12/10/15 14:00	12/10/15 14:00	KEW



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	09	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:37	BG
Arsenic	09RE1	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 20:49	BG
Beryllium	09	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:37	BG
Cadmium	09	SW6010C	2.54 mg/kg		0.200	1	12/09/15 09:20	12/14/15 13:37	BG
Chromium	09	SW6010C	17.7 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:37	BG
Copper	09	SW6010C	18.0 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:37	BG
Mercury	09RE1	SW7471B	0.394 mg/kg		0.068	10	12/10/15 16:30	12/11/15 13:51	MWL
Nickel	09	SW6010C	17.6 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:37	BG
Lead	09	SW6010C	49.7 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:37	BG
Antimony	09	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 13:37	BG
Selenium	09	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:37	BG
Thallium	09	SW6010C	7.24 mg/kg		2.50	1	12/09/15 09:20	12/14/15 13:37	BG
Zinc	09	SW6010C	104 mg/kg		0.500	1	12/09/15 09:20	12/14/15 13:37	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1,1-Trichloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1,2,2-Tetrachloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1,2-Trichloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1-Dichloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1-Dichloroethylene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,1-Dichloropropene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2,3-Trichlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2,3-Trichloropropane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2,4-Trichlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2,4-Trimethylbenzene	09	SW8260B	8660 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2-Dibromoethane (EDB)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2-Dichlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2-Dichloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,2-Dichloropropane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,3,5-Trimethylbenzene	09	SW8260B	2880 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,3-Dichlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,3-Dichloropropane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
1,4-Dichlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
2,2-Dichloropropane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
2-Butanone (MEK)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
2-Chlorotoluene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
2-Hexanone (MBK)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
4-Chlorotoluene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
4-Isopropyltoluene	09	SW8260B	634 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
4-Methyl-2-pentanone (MIBK)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Acetone	09	SW8260B	<500 ug/kg		500	50	12/10/15 16:44	12/10/15 16:44	MKD
Benzene	09RE2	SW8260B	177000 ug/kg		10000	2000	12/13/15 20:55	12/13/15 20:55	KCS
Bromobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Bromochloromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Bromodichloromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Bromoform	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Bromomethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Carbon disulfide	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Carbon tetrachloride	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Chlorobenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Chloroform	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Chloromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
cis-1,2-Dichloroethylene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
cis-1,3-Dichloropropene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Dibromochloromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Dibromomethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Dichlorodifluoromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Di-isopropyl ether (DIPE)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Ethylbenzene	09RE2	SW8260B	96300 ug/kg		10000	2000	12/13/15 20:55	12/13/15 20:55	KCS
Hexachlorobutadiene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Iodomethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Isopropylbenzene	09	SW8260B	4270 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
m+p-Xylenes	09	SW8260B	11500 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Methylene chloride	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Methyl-t-butyl ether (MTBE)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Naphthalene	09RE3	SW8260B	946000 ug/kg		25000	5000	12/14/15 16:28	12/14/15 16:28	KCS
n-Butylbenzene	09	SW8260B	319 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
n-Propylbenzene	09	SW8260B	464 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
o-Xylene	09	SW8260B	10200 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
sec-Butylbenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Styrene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
tert-Butylbenzene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Tetrachloroethylene (PCE)	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Toluene	09	SW8260B	1520 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
trans-1,2-Dichloroethylene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Trichloroethylene	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Trichlorofluoromethane	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Vinyl acetate	09	SW8260B	<500 ug/kg		500	50	12/10/15 16:44	12/10/15 16:44	MKD
Vinyl chloride	09	SW8260B	<250 ug/kg		250	50	12/10/15 16:44	12/10/15 16:44	MKD
Xylenes, Total	09	SW8260B	21700 ug/kg		750	50	12/10/15 16:44	12/10/15 16:44	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	09	SW8260B	95.5 %		80-120		12/10/15 16:44	12/10/15 16:44	MKD
<i>Surr: 4-Bromofluorobenzene</i>	09	SW8260B	101 %		85-120		12/10/15 16:44	12/10/15 16:44	MKD
<i>Surr: Dibromofluoromethane</i>	09	SW8260B	87.8 %		80-119		12/10/15 16:44	12/10/15 16:44	MKD
<i>Surr: Toluene-d8</i>	09	SW8260B	98.3 %		85-115		12/10/15 16:44	12/10/15 16:44	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	09RE2	SW8260B	98.0 %		80-120		12/13/15 20:55	12/13/15 20:55	KCS
<i>Surr: 4-Bromofluorobenzene</i>	09RE2	SW8260B	98.0 %		85-120		12/13/15 20:55	12/13/15 20:55	KCS
<i>Surr: Dibromofluoromethane</i>	09RE2	SW8260B	96.8 %		80-119		12/13/15 20:55	12/13/15 20:55	KCS
<i>Surr: Toluene-d8</i>	09RE2	SW8260B	98.1 %		85-115		12/13/15 20:55	12/13/15 20:55	KCS
<i>Surr: 1,2-Dichloroethane-d4</i>	09RE3	SW8260B	96.8 %		80-120		12/14/15 16:28	12/14/15 16:28	KCS
<i>Surr: 4-Bromofluorobenzene</i>	09RE3	SW8260B	97.0 %		85-120		12/14/15 16:28	12/14/15 16:28	KCS
<i>Surr: Dibromofluoromethane</i>	09RE3	SW8260B	100 %		80-119		12/14/15 16:28	12/14/15 16:28	KCS
<i>Surr: Toluene-d8</i>	09RE3	SW8260B	99.0 %		85-115		12/14/15 16:28	12/14/15 16:28	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1,2,4-Trichlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1,2-Dichlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1,2-Diphenylhydrazine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1,3-Dichlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1,4-Dichlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
1-Chloronaphthalene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
1-Naphthylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,3,4,6-Tetrachlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4,5-Trichlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4,6-Trichlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4-Dichlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4-Dimethylphenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4-Dinitrophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,4-Dinitrotoluene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,6-Dichlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2,6-Dinitrotoluene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2-Chloronaphthalene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2-Chlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2-Methylnaphthalene	09RE1	SW8270D	569000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
2-Naphthylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2-Nitroaniline	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
2-Nitrophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
3,3'-Dichlorobenzidine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
3-Methylcholanthrene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
3-Nitroaniline	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4,6-Dinitro-2-methylphenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Aminobiphenyl	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Bromophenyl phenyl ether	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Chloroaniline	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Chlorophenyl phenyl ether	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Nitroaniline	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
4-Nitrophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
7,12-Dimethylbenz (a)anthracene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Acenaphthene	09	SW8270D	93700 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Acenaphthylene	09RE1	SW8270D	195000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Acetophenone	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Aniline	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Anthracene	09RE1	SW8270D	287000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Benzidine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Benzo (a) anthracene	09RE1	SW8270D	223000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Benzo (a) pyrene	09RE1	SW8270D	195000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Benzo (b) fluoranthene	09RE1	SW8270D	185000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Benzo (g,h,i) perylene	09	SW8270D	73400 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Benzo (k) fluoranthene	09	SW8270D	67400 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Benzoic acid	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Benzyl alcohol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
bis (2-Chloroethoxy) methane	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
bis (2-Chloroethyl) ether	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
bis (2-Chloroisopropyl) ether	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
bis (2-Ethylhexyl) phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Butyl benzyl phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Chrysene	09RE1	SW8270D	191000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Dibenz (a,h) anthracene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Dibenz (a,j) acridine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Dibenzofuran	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Diethyl phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Dimethyl phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Di-n-butyl phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Di-n-octyl phthalate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Diphenylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Ethyl methanesulfonate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Fluoranthene	09RE1	SW8270D	544000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Fluorene	09RE1	SW8270D	240000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Hexachlorobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Hexachlorobutadiene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Hexachlorocyclopentadiene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Hexachloroethane	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Indeno (1,2,3-cd) pyrene	09	SW8270D	63100 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Isophorone	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
m+p-Cresols	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Methyl methanesulfonate	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Naphthalene	09RE2	SW8270D	2060000 ug/kg		63900	400	12/11/15 10:10	12/14/15 15:57	JHV
Nitrobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
n-Nitrosodimethylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
n-Nitrosodi-n-butylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
n-Nitrosodi-n-propylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
n-Nitrosodiphenylamine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
n-Nitrosopiperidine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
o+m+p-Cresols	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
o-Cresol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
p-(Dimethylamino)azobenzene	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
p-Chloro-m-cresol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Pentachloronitrobenzene (quintozone)	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pentachlorophenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Phenacetin	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Phenanthrene	09RE1	SW8270D	1180000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Phenol	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Pronamide	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
Pyrene	09RE1	SW8270D	724000 ug/kg		31900	200	12/11/15 10:10	12/14/15 16:36	JHV
Pyridine	09	SW8270D	<3190 ug/kg		3190	20	12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	09	SW8270D	4.88 %	DS	35-125		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: 2-Fluorobiphenyl</i>	09	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: 2-Fluorophenol</i>	09	SW8270D	72.5 %		35-105		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: Nitrobenzene-d5</i>	09	SW8270D	81.3 %		35-100		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: Phenol-d5</i>	09	SW8270D	61.9 %		40-100		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: p-Terphenyl-d14</i>	09	SW8270D	15.9 %	DS	30-125		12/11/15 10:10	12/11/15 21:22	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	09RE1	SW8270D	%	DS	35-125		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: 2-Fluorobiphenyl</i>	09RE1	SW8270D	%	DS	45-105		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: 2-Fluorophenol</i>	09RE1	SW8270D	78.8 %		35-105		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: Nitrobenzene-d5</i>	09RE1	SW8270D	142 %	DS	35-100		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: Phenol-d5</i>	09RE1	SW8270D	106 %	DS	40-100		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: p-Terphenyl-d14</i>	09RE1	SW8270D	%	DS	30-125		12/11/15 10:10	12/14/15 16:36	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	09RE2	SW8270D	%	DS	35-125		12/11/15 10:10	12/14/15 15:57	JHV
<i>Surr: 2-Fluorobiphenyl</i>	09RE2	SW8270D	%	DS	45-105		12/11/15 10:10	12/14/15 15:57	JHV
<i>Surr: 2-Fluorophenol</i>	09RE2	SW8270D	110 %	DS	35-105		12/11/15 10:10	12/14/15 15:57	JHV
<i>Surr: Nitrobenzene-d5</i>	09RE2	SW8270D	150 %	DS	35-100		12/11/15 10:10	12/14/15 15:57	JHV
<i>Surr: Phenol-d5</i>	09RE2	SW8270D	117 %	DS	40-100		12/11/15 10:10	12/14/15 15:57	JHV
<i>Surr: p-Terphenyl-d14</i>	09RE2	SW8270D	%	DS	30-125		12/11/15 10:10	12/14/15 15:57	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	09	SW8015C	564 mg/kg		250	25	12/10/15 16:02	12/11/15 18:14	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB12 Laboratory Sample ID: 15L0217-09

Date/Time Sampled: 12/07/2015 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Hydrocarbons by GC									
Surr: Pentacosane	09	SW8015C	274 %	DS	40-160		12/10/15 16:02	12/11/15 18:14	JHV
TPH-Semi-Volatiles (ORO)	09	SW8015C	8310 mg/kg		474	25	12/09/15 15:02	12/10/15 20:38	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1221	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1232	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1242	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1248	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1254	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
PCB as Aroclor 1260	09	SW8082A	<0.158 mg/kg dry		0.158	1	12/10/15 13:30	12/11/15 10:39	SKS
Surr: DCB	09	SW8082A	70.0 %		30-105		12/10/15 13:30	12/11/15 10:39	SKS
Surr: TCMX	09	SW8082A	75.0 %		30-105		12/10/15 13:30	12/11/15 10:39	SKS
Wet Chemistry Analysis									
Percent Solids	09	SM18 2540G	63.0 %		0.10	1	12/10/15 14:02	12/10/15 14:02	KEW



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Silver	10	SW6010C	<0.500 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:30	BG
Arsenic	10	SW6010C	<1.00 mg/kg		1.00	1	12/09/15 09:20	12/14/15 12:30	BG
Beryllium	10	SW6010C	<0.200 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:30	BG
Cadmium	10	SW6010C	1.03 mg/kg		0.200	1	12/09/15 09:20	12/14/15 12:30	BG
Chromium	10	SW6010C	9.06 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:30	BG
Copper	10	SW6010C	12.7 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:30	BG
Mercury	10RE1	SW7471B	0.280 mg/kg		0.034	5	12/10/15 16:30	12/11/15 13:53	MWL
Nickel	10	SW6010C	3.51 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:30	BG
Lead	10	SW6010C	93.4 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:30	BG
Antimony	10	SW6010C	<5.00 mg/kg		5.00	1	12/09/15 09:20	12/14/15 12:30	BG
Selenium	10	SW6010C	<2.50 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:30	BG
Thallium	10	SW6010C	12.1 mg/kg		2.50	1	12/09/15 09:20	12/14/15 12:30	BG
Zinc	10	SW6010C	12.6 mg/kg		0.500	1	12/09/15 09:20	12/14/15 12:30	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1,1-Trichloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1,2,2-Tetrachloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1,2-Trichloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1-Dichloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1-Dichloroethylene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,1-Dichloropropene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2,3-Trichlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2,3-Trichloropropane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2,4-Trichlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2,4-Trimethylbenzene	10	SW8260B	3500 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2-Dibromoethane (EDB)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2-Dichlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2-Dichloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,2-Dichloropropane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,3,5-Trimethylbenzene	10	SW8260B	1070 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,3-Dichlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,3-Dichloropropane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
1,4-Dichlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
2,2-Dichloropropane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
2-Butanone (MEK)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
2-Chlorotoluene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
2-Hexanone (MBK)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
4-Chlorotoluene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
4-Isopropyltoluene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
4-Methyl-2-pentanone (MIBK)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Acetone	10	SW8260B	<497 ug/kg		497	50	12/10/15 15:56	12/10/15 15:56	MKD
Benzene	10	SW8260B	1990 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Bromobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Bromochloromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Bromodichloromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Bromoform	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Bromomethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Carbon disulfide	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Carbon tetrachloride	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Chlorobenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Chloroform	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Chloromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
cis-1,2-Dichloroethylene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
cis-1,3-Dichloropropene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Dibromochloromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Dibromomethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Dichlorodifluoromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Di-isopropyl ether (DIPE)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Ethylbenzene	10	SW8260B	1530 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Hexachlorobutadiene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Iodomethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Isopropylbenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
m+p-Xylenes	10	SW8260B	7410 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Methylene chloride	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Methyl-t-butyl ether (MTBE)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Naphthalene	10RE3	SW8260B	1770000 ug/kg		24900	5000	12/14/15 16:52	12/14/15 16:52	KCS
n-Butylbenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
n-Propylbenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
o-Xylene	10	SW8260B	3070 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
sec-Butylbenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Styrene	10	SW8260B	1270 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
tert-Butylbenzene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Tetrachloroethylene (PCE)	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Toluene	10	SW8260B	4020 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
trans-1,2-Dichloroethylene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Trichloroethylene	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Trichlorofluoromethane	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Vinyl acetate	10	SW8260B	<497 ug/kg		497	50	12/10/15 15:56	12/10/15 15:56	MKD
Vinyl chloride	10	SW8260B	<249 ug/kg		249	50	12/10/15 15:56	12/10/15 15:56	MKD
Xylenes, Total	10	SW8260B	10500 ug/kg		746	50	12/10/15 15:56	12/10/15 15:56	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	10	SW8260B	99.7 %		80-120		12/10/15 15:56	12/10/15 15:56	MKD
<i>Surr: 4-Bromofluorobenzene</i>	10	SW8260B	100 %		85-120		12/10/15 15:56	12/10/15 15:56	MKD
<i>Surr: Dibromofluoromethane</i>	10	SW8260B	90.3 %		80-119		12/10/15 15:56	12/10/15 15:56	MKD
<i>Surr: Toluene-d8</i>	10	SW8260B	97.6 %		85-115		12/10/15 15:56	12/10/15 15:56	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	10RE3	SW8260B	97.6 %		80-120		12/14/15 16:52	12/14/15 16:52	KCS
<i>Surr: 4-Bromofluorobenzene</i>	10RE3	SW8260B	98.0 %		85-120		12/14/15 16:52	12/14/15 16:52	KCS
<i>Surr: Dibromofluoromethane</i>	10RE3	SW8260B	96.6 %		80-119		12/14/15 16:52	12/14/15 16:52	KCS
<i>Surr: Toluene-d8</i>	10RE3	SW8260B	97.1 %		85-115		12/14/15 16:52	12/14/15 16:52	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1,2,4-Trichlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1,2-Dichlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1,2-Diphenylhydrazine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1,3-Dichlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1,4-Dichlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1-Chloronaphthalene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
1-Naphthylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,3,4,6-Tetrachlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,4,5-Trichlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,4,6-Trichlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV



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Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,4-Dimethylphenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,4-Dinitrophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,4-Dinitrotoluene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,6-Dichlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2,6-Dinitrotoluene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2-Chloronaphthalene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2-Chlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2-Methylnaphthalene	10RE1	SW8270D	161000 ug/kg		16700	200	12/11/15 10:10	12/14/15 15:17	JHV
2-Naphthylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2-Nitroaniline	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
2-Nitrophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
3,3'-Dichlorobenzidine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
3-Methylcholanthrene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
3-Nitroaniline	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4,6-Dinitro-2-methylphenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Aminobiphenyl	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Bromophenyl phenyl ether	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Chloroaniline	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Chlorophenyl phenyl ether	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Nitroaniline	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
4-Nitrophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
7,12-Dimethylbenz (a) anthracene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Acenaphthene	10	SW8270D	7730 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Acenaphthylene	10	SW8270D	13200 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Acetophenone	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV



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Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Aniline	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Anthracene	10	SW8270D	38500 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzidine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzo (a) anthracene	10	SW8270D	41500 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzo (a) pyrene	10	SW8270D	33900 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzo (b) fluoranthene	10	SW8270D	32100 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzo (g,h,i) perylene	10	SW8270D	13100 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzo (k) fluoranthene	10	SW8270D	17800 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzoic acid	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Benzyl alcohol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
bis (2-Chloroethoxy) methane	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
bis (2-Chloroethyl) ether	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
bis (2-Chloroisopropyl) ether	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
bis (2-Ethylhexyl) phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Butyl benzyl phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Chrysene	10	SW8270D	36400 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Dibenz (a,h) anthracene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Dibenz (a,j) acridine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Dibenzofuran	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Diethyl phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Dimethyl phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Di-n-butyl phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Di-n-octyl phthalate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Diphenylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Ethyl methanesulfonate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Fluoranthene	10RE1	SW8270D	111000 ug/kg		16700	200	12/11/15 10:10	12/14/15 15:17	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	10	SW8270D	55300 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Hexachlorobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Hexachlorobutadiene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Hexachlorocyclopentadiene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Hexachloroethane	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Indeno (1,2,3-cd) pyrene	10	SW8270D	11400 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Isophorone	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
m+p-Cresols	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Methyl methanesulfonate	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Naphthalene	10RE1	SW8270D	508000 ug/kg		16700	200	12/11/15 10:10	12/14/15 15:17	JHV
Nitrobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
n-Nitrosodimethylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
n-Nitrosodi-n-butylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
n-Nitrosodi-n-propylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
n-Nitrosodiphenylamine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
n-Nitrosopiperidine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
o+m+p-Cresols	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
o-Cresol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
p-(Dimethylamino) azobenzene	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
p-Chloro-m-cresol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Pentachloronitrobenzene (quintozone)	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Pentachlorophenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Phenacetin	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Phenanthrene	10RE1	SW8270D	265000 ug/kg		16700	200	12/11/15 10:10	12/14/15 15:17	JHV
Phenol	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
Pyrene	10RE1	SW8270D	131000 ug/kg		16700	200	12/11/15 10:10	12/14/15 15:17	JHV
Pyridine	10	SW8270D	<1670 ug/kg		1670	20	12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	10	SW8270D	31.2 %	DS	35-125		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: 2-Fluorobiphenyl</i>	10	SW8270D	%	DS	45-105		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: 2-Fluorophenol</i>	10	SW8270D	46.3 %		35-105		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: Nitrobenzene-d5</i>	10	SW8270D	54.4 %		35-100		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: Phenol-d5</i>	10	SW8270D	47.9 %		40-100		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: p-Terphenyl-d14</i>	10	SW8270D	39.0 %		30-125		12/11/15 10:10	12/11/15 22:00	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	10RE1	SW8270D	%	DS	35-125		12/11/15 10:10	12/14/15 15:17	JHV
<i>Surr: 2-Fluorobiphenyl</i>	10RE1	SW8270D	%	DS	45-105		12/11/15 10:10	12/14/15 15:17	JHV
<i>Surr: 2-Fluorophenol</i>	10RE1	SW8270D	51.4 %		35-105		12/11/15 10:10	12/14/15 15:17	JHV
<i>Surr: Nitrobenzene-d5</i>	10RE1	SW8270D	66.4 %		35-100		12/11/15 10:10	12/14/15 15:17	JHV
<i>Surr: Phenol-d5</i>	10RE1	SW8270D	60.2 %		40-100		12/11/15 10:10	12/14/15 15:17	JHV
<i>Surr: p-Terphenyl-d14</i>	10RE1	SW8270D	%	DS	30-125		12/11/15 10:10	12/14/15 15:17	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	10	SW8015C	3370 mg/kg		247	25	12/10/15 16:02	12/11/15 18:41	JHV
<i>Surr: Pentacosane</i>	10	SW8015C	303 %	DS	40-160		12/10/15 16:02	12/11/15 18:41	JHV
TPH-Semi-Volatiles (ORO)	10	SW8015C	6850 mg/kg		248	25	12/09/15 15:02	12/10/15 21:03	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
PCB as Aroclor 1221	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
PCB as Aroclor 1232	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
PCB as Aroclor 1242	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
PCB as Aroclor 1248	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
PCB as Aroclor 1254	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. SB11 Laboratory Sample ID: 15L0217-10

Date/Time Sampled: 12/08/2015 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1260	10	SW8082A	<0.127 mg/kg dry		0.127	1	12/10/15 13:30	12/11/15 10:57	SKS
Surr: DCB	10	SW8082A	40.0 %		30-105		12/10/15 13:30	12/11/15 10:57	SKS
Surr: TCMX	10	SW8082A	110 %	S	30-105		12/10/15 13:30	12/11/15 10:57	SKS
Wet Chemistry Analysis									
Percent Solids	10	SM18 2540G	78.5 %		0.10	1	12/10/15 14:04	12/10/15 14:04	KEW



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Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 200 Series Methods									
Silver	11	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:12	BG
Arsenic	11RE1	EPA200.7 Rev 4.4	0.0210 mg/L		0.0100	1	12/09/15 14:00	12/15/15 13:41	BG
Beryllium	11	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:12	BG
Cadmium	11	EPA200.7 Rev 4.4	0.0099 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:13	BG
Chromium	11	EPA200.7 Rev 4.4	0.0688 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:13	BG
Copper	11	EPA200.7 Rev 4.4	0.0812 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:12	BG
Mercury	11	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 15:47	MWL
Nickel	11	EPA200.7 Rev 4.4	0.0536 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:13	BG
Lead	11	EPA200.7 Rev 4.4	0.236 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:13	BG
Antimony	11	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:10	MWL
Selenium	11	EPA200.9 R2.2	0.0032 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:20	MWL
Thallium	11	EPA200.9 R2.2	<0.0020 mg/L		0.0020	1	12/09/15 14:00	12/15/15 10:50	MWL
Zinc	11	EPA200.7 Rev 4.4	0.251 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:13	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	11	SW8260B	<0.40 ug/L		0.40	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1,1-Trichloroethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1,2,2-Tetrachloroethane	11	SW8260B	<0.40 ug/L		0.40	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1,2-Trichloroethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1-Dichloroethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1-Dichloroethylene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,1-Dichloropropene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2,3-Trichlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2,3-Trichloropropane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2,4-Trichlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2,4-Trimethylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	11	SW8260B	<4.00 ug/L		4.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2-Dibromoethane (EDB)	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2-Dichlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2-Dichloroethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,2-Dichloropropane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,3,5-Trimethylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,3-Dichlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,3-Dichloropropane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
1,4-Dichlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
2,2-Dichloropropane	11	SW8260B	<2.00 ug/L		2.00	1	12/10/15 14:24	12/10/15 14:24	MKD
2-Butanone (MEK)	11	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:24	12/10/15 14:24	MKD
2-Chlorotoluene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
2-Hexanone (MBK)	11	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:24	12/10/15 14:24	MKD
4-Chlorotoluene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
4-Isopropyltoluene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
4-Methyl-2-pentanone (MIBK)	11	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Acetone	11	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:24	12/10/15 14:24	MKD
Benzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Bromobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Bromochloromethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Bromodichloromethane	11	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:24	12/10/15 14:24	MKD
Bromoform	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Bromomethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Carbon disulfide	11	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:24	12/10/15 14:24	MKD
Carbon tetrachloride	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Chlorobenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Chloroform	11	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:24	12/10/15 14:24	MKD
Chloromethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
cis-1,2-Dichloroethylene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
cis-1,3-Dichloropropene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Dibromochloromethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Dibromomethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Dichlorodifluoromethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Di-isopropyl ether (DIPE)	11	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Ethylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Hexachlorobutadiene	11	SW8260B	<0.80 ug/L		0.80	1	12/10/15 14:24	12/10/15 14:24	MKD
Iodomethane	11	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:24	12/10/15 14:24	MKD
Isopropylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
m+p-Xylenes	11	SW8260B	<2.00 ug/L		2.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Methylene chloride	11	SW8260B	<4.00 ug/L		4.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Methyl-t-butyl ether (MTBE)	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Naphthalene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
n-Butylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
n-Propylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
o-Xylene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
sec-Butylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Styrene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
tert-Butylbenzene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Tetrachloroethylene (PCE)	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Toluene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
trans-1,2-Dichloroethylene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Trichloroethylene	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Trichlorofluoromethane	11	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Vinyl acetate	11	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:24	12/10/15 14:24	MKD
Vinyl chloride	11	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:24	12/10/15 14:24	MKD
Xylenes, Total	11	SW8260B	<3.00 ug/L		3.00	1	12/10/15 14:24	12/10/15 14:24	MKD
Surr: 1,2-Dichloroethane-d4	11	SW8260B	104 %		70-120		12/10/15 14:24	12/10/15 14:24	MKD
Surr: 4-Bromofluorobenzene	11	SW8260B	96.6 %		75-120		12/10/15 14:24	12/10/15 14:24	MKD
Surr: Dibromofluoromethane	11	SW8260B	103 %		80-119		12/10/15 14:24	12/10/15 14:24	MKD
Surr: Toluene-d8	11	SW8260B	100 %		85-120		12/10/15 14:24	12/10/15 14:24	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1,2,4-Trichlorobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1,2-Dichlorobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1,2-Diphenylhydrazine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1,3-Dichlorobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1,3-Dinitrobenzene	11	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 18:42	JHV
1,4-Dichlorobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
1-Naphthylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,3,4,6-Tetrachlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4,5-Trichlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4,6-Trichlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4-Dichlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4-Dimethylphenol	11	SW8270D	<0.54 ug/L		0.54	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4-Dinitrophenol	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
2,4-Dinitrotoluene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2,6-Dinitrotoluene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Chloronaphthalene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Chlorophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Methylnaphthalene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Naphthylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Nitroaniline	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
2-Nitrophenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
3,3'-Dichlorobenzidine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
3-Methylcholanthrene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
3-Nitroaniline	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
4,6-Dinitro-2-methylphenol	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Aminobiphenyl	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Bromophenyl phenyl ether	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Chloroaniline	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Chlorophenyl phenyl ether	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Nitroaniline	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
4-Nitrophenol	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
7,12-Dimethylbenz (a) anthracene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Acenaphthene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Acenaphthylene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Acetophenone	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
Aniline	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
Anthracene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzidine	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzo (a) anthracene	11	SW8270D	<0.05 ug/L		0.05	1	12/09/15 09:21	12/10/15 18:42	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzo (b) fluoranthene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzo (g,h,i) perylene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzo (k) fluoranthene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzoic acid	11	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 18:42	JHV
Benzyl alcohol	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
bis (2-Chloroethoxy) methane	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
bis (2-Chloroethyl) ether	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
bis (2-Chloroisopropyl) ether	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
bis (2-Ethylhexyl) phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Butyl benzyl phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Chrysene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Dibenz (a,h) anthracene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Dibenz (a,j) acridine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Dibenzofuran	11	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 18:42	JHV
Diethyl phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Dimethyl phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Di-n-butyl phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Di-n-octyl phthalate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Diphenylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Ethyl methanesulfonate	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42	JHV
Fluoranthene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Fluorene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Hexachlorobenzene	11	SW8270D	<1.09 ug/L		1.09	1	12/09/15 09:21	12/10/15 18:42	JHV
Hexachlorobutadiene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV
Hexachlorocyclopentadiene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results								
Sample I.D.	MW1	Laboratory Sample ID: 15L0217-11						
Date/Time Sampled:		12/08/2015 11:30						
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time Analyst
Semivolatile Organic Compounds by GCMS								
Hexachloroethane	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Indeno (1,2,3-cd) pyrene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Isophorone	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
m+p-Cresols	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Methyl methanesulfonate	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Naphthalene	11	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 18:42 JHV
Nitrobenzene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
n-Nitrosodimethylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
n-Nitrosodi-n-butylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
n-Nitrosodi-n-propylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
n-Nitrosodiphenylamine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
n-Nitrosopiperidine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
o+m+p-Cresols	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
o-Cresol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
p-(Dimethylamino) azobenzene	11	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 18:42 JHV
p-Chloro-m-cresol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Pentachloronitrobenzene (quintozone)	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Pentachlorophenol	11	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 18:42 JHV
Phenacetin	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Phenanthrene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Phenol	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Pronamide	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Pyrene	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Pyridine	11	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 18:42 JHV
Surr: 2,4,6-Tribromophenol	11	SW8270D	66.5 %		40-125		12/09/15 09:21	12/10/15 18:42 JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1 Laboratory Sample ID: 15L0217-11

Date/Time Sampled: 12/08/2015 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	11	SW8270D	36.9 %		23-87		12/09/15 09:21	12/10/15 18:42	JHV
Surr: 2-Fluorophenol	11	SW8270D	28.0 %		14-52		12/09/15 09:21	12/10/15 18:42	JHV
Surr: Nitrobenzene-d5	11	SW8270D	42.2 %		40-110		12/09/15 09:21	12/10/15 18:42	JHV
Surr: Phenol-d5	11	SW8270D	17.3 %		5-33		12/09/15 09:21	12/10/15 18:42	JHV
Surr: p-Terphenyl-d14	11	SW8270D	94.7 %		27-133		12/09/15 09:21	12/10/15 18:42	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	11	SW8015C	<0.50 mg/L		0.50	1	12/09/15 14:02	12/09/15 23:29	JHV
Surr: Pentacosane	11	SW8015C	98.3 %		40-160		12/09/15 14:02	12/09/15 23:29	JHV
TPH-Semi-Volatiles (ORO)	11	SW8015C	<1.1 mg/L		1.1	1	12/11/15 14:30	12/12/15 04:15	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1221	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1232	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1242	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1248	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1254	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
PCB as Aroclor 1260	11	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 22:51	SKS
Surr: DCB	11	SW8082A	40.0 %		30-105		12/11/15 09:44	12/11/15 22:51	SKS
Surr: TCMX	11	SW8082A	30.0 %		30-105		12/11/15 09:44	12/11/15 22:51	SKS



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Silver	12	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG
Arsenic	12RE1	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/15/15 13:46	BG
Beryllium	12	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:17	BG
Cadmium	12	EPA200.7 Rev 4.4	0.0105 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:17	BG
Chromium	12	EPA200.7 Rev 4.4	0.0404 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG
Copper	12	EPA200.7 Rev 4.4	0.0436 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG
Mercury	12	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 15:54	MWL
Nickel	12	EPA200.7 Rev 4.4	0.0311 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG
Lead	12	EPA200.7 Rev 4.4	0.183 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG
Antimony	12	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:15	MWL
Selenium	12	EPA200.9 R2.2	<0.0030 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:25	MWL
Thallium	12	EPA200.9 R2.2	<0.0020 mg/L		0.0020	1	12/09/15 14:00	12/15/15 10:56	MWL
Zinc	12	EPA200.7 Rev 4.4	0.388 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:17	BG

Volatile Organic Compounds by GCMS

1,1,1,2-Tetrachloroethane	12	SW8260B	<0.40 ug/L		0.40	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1,1-Trichloroethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1,2,2-Tetrachloroethane	12	SW8260B	<0.40 ug/L		0.40	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1,2-Trichloroethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1-Dichloroethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1-Dichloroethylene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,1-Dichloropropene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2,3-Trichlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2,3-Trichloropropane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2,4-Trichlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2,4-Trimethylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	12	SW8260B	<4.00 ug/L		4.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2-Dibromoethane (EDB)	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2-Dichlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2-Dichloroethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,2-Dichloropropane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,3,5-Trimethylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,3-Dichlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,3-Dichloropropane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
1,4-Dichlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
2,2-Dichloropropane	12	SW8260B	<2.00 ug/L		2.00	1	12/10/15 15:12	12/10/15 15:12	MKD
2-Butanone (MEK)	12	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:12	12/10/15 15:12	MKD
2-Chlorotoluene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
2-Hexanone (MBK)	12	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:12	12/10/15 15:12	MKD
4-Chlorotoluene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
4-Isopropyltoluene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
4-Methyl-2-pentanone (MIBK)	12	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Acetone	12	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:12	12/10/15 15:12	MKD
Benzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Bromobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Bromochloromethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Bromodichloromethane	12	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:12	12/10/15 15:12	MKD
Bromoform	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Bromomethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Carbon disulfide	12	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:12	12/10/15 15:12	MKD
Carbon tetrachloride	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Chlorobenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Chloroform	12	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:12	12/10/15 15:12	MKD
Chloromethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
cis-1,2-Dichloroethylene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
cis-1,3-Dichloropropene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Dibromochloromethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Dibromomethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Dichlorodifluoromethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Di-isopropyl ether (DIPE)	12	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Ethylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Hexachlorobutadiene	12	SW8260B	<0.80 ug/L		0.80	1	12/10/15 15:12	12/10/15 15:12	MKD
Iodomethane	12	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:12	12/10/15 15:12	MKD
Isopropylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
m+p-Xylenes	12	SW8260B	<2.00 ug/L		2.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Methylene chloride	12	SW8260B	<4.00 ug/L		4.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Methyl-t-butyl ether (MTBE)	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Naphthalene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
n-Butylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
n-Propylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
o-Xylene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
sec-Butylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Styrene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
tert-Butylbenzene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Tetrachloroethylene (PCE)	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Toluene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
trans-1,2-Dichloroethylene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Volatile Organic Compounds by GCMS

trans-1,3-Dichloropropene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Trichloroethylene	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Trichlorofluoromethane	12	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Vinyl acetate	12	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:12	12/10/15 15:12	MKD
Vinyl chloride	12	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:12	12/10/15 15:12	MKD
Xylenes, Total	12	SW8260B	<3.00 ug/L		3.00	1	12/10/15 15:12	12/10/15 15:12	MKD
Surr: 1,2-Dichloroethane-d4	12	SW8260B	108 %		70-120		12/10/15 15:12	12/10/15 15:12	MKD
Surr: 4-Bromofluorobenzene	12	SW8260B	96.0 %		75-120		12/10/15 15:12	12/10/15 15:12	MKD
Surr: Dibromofluoromethane	12	SW8260B	106 %		80-119		12/10/15 15:12	12/10/15 15:12	MKD
Surr: Toluene-d8	12	SW8260B	102 %		85-120		12/10/15 15:12	12/10/15 15:12	MKD

Semivolatile Organic Compounds by GCMS

1,2,4,5-Tetrachlorobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1,2,4-Trichlorobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1,2-Dichlorobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1,2-Diphenylhydrazine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1,3-Dichlorobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1,3-Dinitrobenzene	12	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 19:21	JHV
1,4-Dichlorobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
1-Naphthylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,3,4,6-Tetrachlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4,5-Trichlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4,6-Trichlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4-Dichlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4-Dimethylphenol	12	SW8270D	<0.54 ug/L		0.54	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4-Dinitrophenol	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
2,4-Dinitrotoluene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2,6-Dinitrotoluene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Chloronaphthalene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Chlorophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Methylnaphthalene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Naphthylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Nitroaniline	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
2-Nitrophenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
3,3'-Dichlorobenzidine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
3-Methylcholanthrene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
3-Nitroaniline	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
4,6-Dinitro-2-methylphenol	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Aminobiphenyl	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Bromophenyl phenyl ether	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Chloroaniline	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Chlorophenyl phenyl ether	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Nitroaniline	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
4-Nitrophenol	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
7,12-Dimethylbenz (a) anthracene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Acenaphthene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Acenaphthylene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Acetophenone	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
Aniline	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
Anthracene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzidine	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzo (a) anthracene	12	SW8270D	<0.05 ug/L		0.05	1	12/09/15 09:21	12/10/15 19:21	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzo (b) fluoranthene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzo (g,h,i) perylene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzo (k) fluoranthene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzoic acid	12	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 19:21	JHV
Benzyl alcohol	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
bis (2-Chloroethoxy) methane	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
bis (2-Chloroethyl) ether	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
bis (2-Chloroisopropyl) ether	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
bis (2-Ethylhexyl) phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Butyl benzyl phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Chrysene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Dibenz (a,h) anthracene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Dibenz (a,j) acridine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Dibenzofuran	12	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 19:21	JHV
Diethyl phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Dimethyl phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Di-n-butyl phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Di-n-octyl phthalate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Diphenylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Ethyl methanesulfonate	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
Fluoranthene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Fluorene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Hexachlorobenzene	12	SW8270D	<1.09 ug/L		1.09	1	12/09/15 09:21	12/10/15 19:21	JHV
Hexachlorobutadiene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Hexachlorocyclopentadiene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Indeno (1,2,3-cd) pyrene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Isophorone	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
m+p-Cresols	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Methyl methanesulfonate	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Naphthalene	12	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 19:21	JHV
Nitrobenzene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
n-Nitrosodimethylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
n-Nitrosodi-n-butylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
n-Nitrosodi-n-propylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
n-Nitrosodiphenylamine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
n-Nitrosopiperidine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
o+m+p-Cresols	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
o-Cresol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
p-(Dimethylamino)azobenzene	12	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 19:21	JHV
p-Chloro-m-cresol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Pentachloronitrobenzene (quintozone)	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Pentachlorophenol	12	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 19:21	JHV
Phenacetin	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Phenanthrene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Phenol	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Pronamide	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Pyrene	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Pyridine	12	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 19:21	JHV
Surr: 2,4,6-Tribromophenol	12	SW8270D	55.9 %		40-125		12/09/15 09:21	12/10/15 19:21	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW2 Laboratory Sample ID: 15L0217-12

Date/Time Sampled: 12/08/2015 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	12	SW8270D	36.5 %		23-87		12/09/15 09:21	12/10/15 19:21	JHV
Surr: 2-Fluorophenol	12	SW8270D	26.6 %		14-52		12/09/15 09:21	12/10/15 19:21	JHV
Surr: Nitrobenzene-d5	12	SW8270D	41.6 %		40-110		12/09/15 09:21	12/10/15 19:21	JHV
Surr: Phenol-d5	12	SW8270D	17.0 %		5-33		12/09/15 09:21	12/10/15 19:21	JHV
Surr: p-Terphenyl-d14	12	SW8270D	84.9 %		27-133		12/09/15 09:21	12/10/15 19:21	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	12	SW8015C	<0.50 mg/L		0.50	1	12/09/15 14:02	12/09/15 23:56	JHV
Surr: Pentacosane	12	SW8015C	89.0 %		40-160		12/09/15 14:02	12/09/15 23:56	JHV
TPH-Semi-Volatiles (ORO)	12	SW8015C	<1.1 mg/L		1.1	1	12/11/15 14:30	12/12/15 04:40	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1221	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1232	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1242	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1248	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1254	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
PCB as Aroclor 1260	12	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:10	SKS
Surr: DCB	12	SW8082A	80.0 %		30-105		12/11/15 09:44	12/11/15 23:10	SKS
Surr: TCMX	12	SW8082A	55.0 %		30-105		12/11/15 09:44	12/11/15 23:10	SKS



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 200 Series Methods									
Silver	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Arsenic	13RE1	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/15/15 13:51	BG
Beryllium	13	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:22	BG
Cadmium	13	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:22	BG
Chromium	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Copper	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Mercury	13	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 16:01	MWL
Nickel	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Lead	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Antimony	13	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:21	MWL
Selenium	13	EPA200.9 R2.2	<0.0030 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:31	MWL
Thallium	13	EPA200.9 R2.2	<0.0020 mg/L		0.0020	1	12/09/15 14:00	12/15/15 11:03	MWL
Zinc	13	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:22	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	13	SW8260B	<0.40 ug/L		0.40	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1,1-Trichloroethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1,2,2-Tetrachloroethane	13	SW8260B	<0.40 ug/L		0.40	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1,2-Trichloroethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1-Dichloroethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1-Dichloroethylene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,1-Dichloropropene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2,3-Trichlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2,3-Trichloropropane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2,4-Trichlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2,4-Trimethylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	13	SW8260B	<4.00 ug/L		4.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2-Dibromoethane (EDB)	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2-Dichlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2-Dichloroethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,2-Dichloropropane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,3,5-Trimethylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,3-Dichlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,3-Dichloropropane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
1,4-Dichlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
2,2-Dichloropropane	13	SW8260B	<2.00 ug/L		2.00	1	12/10/15 15:36	12/10/15 15:36	MKD
2-Butanone (MEK)	13	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:36	12/10/15 15:36	MKD
2-Chlorotoluene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
2-Hexanone (MBK)	13	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:36	12/10/15 15:36	MKD
4-Chlorotoluene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
4-Isopropyltoluene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
4-Methyl-2-pentanone (MIBK)	13	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Acetone	13	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:36	12/10/15 15:36	MKD
Benzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Bromobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Bromochloromethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Bromodichloromethane	13	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:36	12/10/15 15:36	MKD
Bromoform	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Bromomethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Carbon disulfide	13	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:36	12/10/15 15:36	MKD
Carbon tetrachloride	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Chlorobenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Chloroform	13	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:36	12/10/15 15:36	MKD
Chloromethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
cis-1,2-Dichloroethylene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
cis-1,3-Dichloropropene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Dibromochloromethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Dibromomethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Dichlorodifluoromethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Di-isopropyl ether (DIPE)	13	SW8260B	<5.00 ug/L		5.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Ethylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Hexachlorobutadiene	13	SW8260B	<0.80 ug/L		0.80	1	12/10/15 15:36	12/10/15 15:36	MKD
Iodomethane	13	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:36	12/10/15 15:36	MKD
Isopropylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
m+p-Xylenes	13	SW8260B	<2.00 ug/L		2.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Methylene chloride	13	SW8260B	<4.00 ug/L		4.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Methyl-t-butyl ether (MTBE)	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Naphthalene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
n-Butylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
n-Propylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
o-Xylene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
sec-Butylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Styrene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
tert-Butylbenzene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Tetrachloroethylene (PCE)	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Toluene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
trans-1,2-Dichloroethylene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Trichloroethylene	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Trichlorofluoromethane	13	SW8260B	<1.00 ug/L		1.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Vinyl acetate	13	SW8260B	<10.0 ug/L		10.0	1	12/10/15 15:36	12/10/15 15:36	MKD
Vinyl chloride	13	SW8260B	<0.50 ug/L		0.50	1	12/10/15 15:36	12/10/15 15:36	MKD
Xylenes, Total	13	SW8260B	<3.00 ug/L		3.00	1	12/10/15 15:36	12/10/15 15:36	MKD
Surr: 1,2-Dichloroethane-d4	13	SW8260B	106 %		70-120		12/10/15 15:36	12/10/15 15:36	MKD
Surr: 4-Bromofluorobenzene	13	SW8260B	96.4 %		75-120		12/10/15 15:36	12/10/15 15:36	MKD
Surr: Dibromofluoromethane	13	SW8260B	105 %		80-119		12/10/15 15:36	12/10/15 15:36	MKD
Surr: Toluene-d8	13	SW8260B	101 %		85-120		12/10/15 15:36	12/10/15 15:36	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1,2,4-Trichlorobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1,2-Dichlorobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1,2-Diphenylhydrazine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1,3-Dichlorobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1,3-Dinitrobenzene	13	SW8270D	<2.60 ug/L		2.60	1	12/09/15 09:21	12/10/15 20:00	JHV
1,4-Dichlorobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
1-Naphthylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,3,4,6-Tetrachlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4,5-Trichlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4,6-Trichlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4-Dichlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4-Dimethylphenol	13	SW8270D	<0.52 ug/L		0.52	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4-Dinitrophenol	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
2,4-Dinitrotoluene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2,6-Dinitrotoluene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Chloronaphthalene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Chlorophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Methylnaphthalene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Naphthylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Nitroaniline	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
2-Nitrophenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
3,3'-Dichlorobenzidine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
3-Methylcholanthrene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
3-Nitroaniline	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
4,6-Dinitro-2-methylphenol	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Aminobiphenyl	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Bromophenyl phenyl ether	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Chloroaniline	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Chlorophenyl phenyl ether	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Nitroaniline	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
4-Nitrophenol	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
7,12-Dimethylbenz (a) anthracene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Acenaphthene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Acenaphthylene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Acetophenone	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
Aniline	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
Anthracene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzidine	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzo (a) anthracene	13	SW8270D	<0.05 ug/L		0.05	1	12/09/15 09:21	12/10/15 20:00	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzo (b) fluoranthene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzo (g,h,i) perylene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzo (k) fluoranthene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzoic acid	13	SW8270D	<52.1 ug/L		52.1	1	12/09/15 09:21	12/10/15 20:00	JHV
Benzyl alcohol	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
bis (2-Chloroethoxy) methane	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
bis (2-Chloroethyl) ether	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
bis (2-Chloroisopropyl) ether	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
bis (2-Ethylhexyl) phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Butyl benzyl phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Chrysene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Dibenz (a,h) anthracene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Dibenz (a,j) acridine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Dibenzofuran	13	SW8270D	<5.21 ug/L		5.21	1	12/09/15 09:21	12/10/15 20:00	JHV
Diethyl phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Dimethyl phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Di-n-butyl phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Di-n-octyl phthalate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Diphenylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Ethyl methanesulfonate	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
Fluoranthene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Fluorene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Hexachlorobenzene	13	SW8270D	<1.04 ug/L		1.04	1	12/09/15 09:21	12/10/15 20:00	JHV
Hexachlorobutadiene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Hexachlorocyclopentadiene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Indeno (1,2,3-cd) pyrene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Isophorone	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
m+p-Cresols	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Methyl methanesulfonate	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Naphthalene	13	SW8270D	<5.21 ug/L		5.21	1	12/09/15 09:21	12/10/15 20:00	JHV
Nitrobenzene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
n-Nitrosodimethylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
n-Nitrosodi-n-butylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
n-Nitrosodi-n-propylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
n-Nitrosodiphenylamine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
n-Nitrosopiperidine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
o+m+p-Cresols	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
o-Cresol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
p-(Dimethylamino)azobenzene	13	SW8270D	<2.60 ug/L		2.60	1	12/09/15 09:21	12/10/15 20:00	JHV
p-Chloro-m-cresol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Pentachloronitrobenzene (quintozone)	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Pentachlorophenol	13	SW8270D	<20.8 ug/L		20.8	1	12/09/15 09:21	12/10/15 20:00	JHV
Phenacetin	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Phenanthrene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Phenol	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Pronamide	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Pyrene	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Pyridine	13	SW8270D	<10.4 ug/L		10.4	1	12/09/15 09:21	12/10/15 20:00	JHV
Surr: 2,4,6-Tribromophenol	13	SW8270D	61.8 %		40-125		12/09/15 09:21	12/10/15 20:00	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW3 Laboratory Sample ID: 15L0217-13

Date/Time Sampled: 12/08/2015 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	13	SW8270D	39.4 %		23-87		12/09/15 09:21	12/10/15 20:00	JHV
Surr: 2-Fluorophenol	13	SW8270D	29.7 %		14-52		12/09/15 09:21	12/10/15 20:00	JHV
Surr: Nitrobenzene-d5	13	SW8270D	45.7 %		40-110		12/09/15 09:21	12/10/15 20:00	JHV
Surr: Phenol-d5	13	SW8270D	19.8 %		5-33		12/09/15 09:21	12/10/15 20:00	JHV
Surr: p-Terphenyl-d14	13	SW8270D	86.8 %		27-133		12/09/15 09:21	12/10/15 20:00	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	13	SW8015C	<0.50 mg/L		0.50	1	12/09/15 14:02	12/10/15 00:22	JHV
Surr: Pentacosane	13	SW8015C	77.6 %		40-160		12/09/15 14:02	12/10/15 00:22	JHV
TPH-Semi-Volatiles (ORO)	13	SW8015C	<1.1 mg/L		1.1	1	12/11/15 14:30	12/12/15 05:06	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1221	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1232	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1242	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1248	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1254	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
PCB as Aroclor 1260	13	SW8082A	<0.562 ug/L		0.562	1	12/11/15 09:44	12/11/15 23:28	SKS
Surr: DCB	13	SW8082A	40.0 %		30-105		12/11/15 09:44	12/11/15 23:28	SKS
Surr: TCMX	13	SW8082A	40.0 %		30-105		12/11/15 09:44	12/11/15 23:28	SKS



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results									
Sample I.D.	MW4	Laboratory Sample ID: 15L0217-14							
Date/Time Sampled: 12/08/2015 12:20									
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 200 Series Methods									
Silver	14	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:27	BG
Arsenic	14RE1	EPA200.7 Rev 4.4	0.373 mg/L		0.0100	1	12/09/15 14:00	12/15/15 14:00	BG
Beryllium	14	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:27	BG
Cadmium	14	EPA200.7 Rev 4.4	0.199 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:27	BG
Chromium	14	EPA200.7 Rev 4.4	0.256 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:27	BG
Copper	14RE1	EPA200.7 Rev 4.4	67.2 mg/L		0.100	10	12/09/15 14:00	12/15/15 13:55	BG
Mercury	14	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 16:04	MWL
Nickel	14	EPA200.7 Rev 4.4	0.453 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:27	BG
Lead	14	EPA200.7 Rev 4.4	0.157 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:27	BG
Antimony	14	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:26	MWL
Selenium	14	EPA200.9 R2.2	0.0058 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:37	MWL
Thallium	14	EPA200.9 R2.2	0.0024 mg/L		0.0020	1	12/09/15 14:00	12/15/15 11:09	MWL
Zinc	14	EPA200.7 Rev 4.4	12.9 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:27	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	14	SW8260B	<4.00 ug/L		4.00	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1,1-Trichloroethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1,2,2-Tetrachloroethane	14	SW8260B	<4.00 ug/L		4.00	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1,2-Trichloroethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1-Dichloroethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1-Dichloroethylene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,1-Dichloropropene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2,3-Trichlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2,3-Trichloropropane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2,4-Trichlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2,4-Trimethylbenzene	14	SW8260B	16.7 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	14	SW8260B	<40.0 ug/L		40.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2-Dibromoethane (EDB)	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2-Dichlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2-Dichloroethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,2-Dichloropropane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,3,5-Trimethylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,3-Dichlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,3-Dichloropropane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
1,4-Dichlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
2,2-Dichloropropane	14	SW8260B	<20.0 ug/L		20.0	10	12/10/15 17:12	12/10/15 17:12	MKD
2-Butanone (MEK)	14	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:12	12/10/15 17:12	MKD
2-Chlorotoluene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
2-Hexanone (MBK)	14	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:12	12/10/15 17:12	MKD
4-Chlorotoluene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
4-Isopropyltoluene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
4-Methyl-2-pentanone (MIBK)	14	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Acetone	14	SW8260B	<100 ug/L		100	10	12/10/15 17:12	12/10/15 17:12	MKD
Benzene	14	SW8260B	212 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Bromobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Bromochloromethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Bromodichloromethane	14	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:12	12/10/15 17:12	MKD
Bromoform	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Bromomethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Carbon disulfide	14	SW8260B	<100 ug/L		100	10	12/10/15 17:12	12/10/15 17:12	MKD
Carbon tetrachloride	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Chlorobenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Chloroform	14	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:12	12/10/15 17:12	MKD
Chloromethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
cis-1,2-Dichloroethylene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
cis-1,3-Dichloropropene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Dibromochloromethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Dibromomethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Dichlorodifluoromethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Di-isopropyl ether (DIPE)	14	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Ethylbenzene	14	SW8260B	23.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Hexachlorobutadiene	14	SW8260B	<8.00 ug/L		8.00	10	12/10/15 17:12	12/10/15 17:12	MKD
Iodomethane	14	SW8260B	<100 ug/L		100	10	12/10/15 17:12	12/10/15 17:12	MKD
Isopropylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
m+p-Xylenes	14	SW8260B	56.9 ug/L		20.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Methylene chloride	14	SW8260B	<40.0 ug/L		40.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Methyl-t-butyl ether (MTBE)	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Naphthalene	14	SW8260B	1950 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
n-Butylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
n-Propylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
o-Xylene	14	SW8260B	52.9 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
sec-Butylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Styrene	14	SW8260B	17.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
tert-Butylbenzene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Tetrachloroethylene (PCE)	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Toluene	14	SW8260B	29.8 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
trans-1,2-Dichloroethylene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Trichloroethylene	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Trichlorofluoromethane	14	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:12	12/10/15 17:12	MKD
Vinyl acetate	14	SW8260B	<100 ug/L		100	10	12/10/15 17:12	12/10/15 17:12	MKD
Vinyl chloride	14	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:12	12/10/15 17:12	MKD
Xylenes, Total	14	SW8260B	110 ug/L		30.0	10	12/10/15 17:12	12/10/15 17:12	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	14	SW8260B	98.8 %		70-120		12/10/15 17:12	12/10/15 17:12	MKD
<i>Surr: 4-Bromofluorobenzene</i>	14	SW8260B	96.5 %		75-120		12/10/15 17:12	12/10/15 17:12	MKD
<i>Surr: Dibromofluoromethane</i>	14	SW8260B	101 %		80-119		12/10/15 17:12	12/10/15 17:12	MKD
<i>Surr: Toluene-d8</i>	14	SW8260B	100 %		85-120		12/10/15 17:12	12/10/15 17:12	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1,2,4-Trichlorobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1,2-Dichlorobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1,2-Diphenylhydrazine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1,3-Dichlorobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1,3-Dinitrobenzene	14	SW8270D	<52.6 ug/L		52.6	20	12/09/15 09:21	12/10/15 21:18	JHV
1,4-Dichlorobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
1-Naphthylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,3,4,6-Tetrachlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4,5-Trichlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4,6-Trichlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4-Dichlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4-Dimethylphenol	14	SW8270D	<10.5 ug/L		10.5	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4-Dinitrophenol	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
2,4-Dinitrotoluene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2,6-Dinitrotoluene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Chloronaphthalene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Chlorophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Methylnaphthalene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Naphthylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Nitroaniline	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
2-Nitrophenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
3,3'-Dichlorobenzidine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
3-Methylcholanthrene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
3-Nitroaniline	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
4,6-Dinitro-2-methylphenol	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Aminobiphenyl	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Bromophenyl phenyl ether	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Chloroaniline	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Chlorophenyl phenyl ether	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Nitroaniline	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
4-Nitrophenol	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
7,12-Dimethylbenz (a) anthracene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Acenaphthene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Acenaphthylene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Acetophenone	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
Aniline	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
Anthracene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzidine	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzo (a) anthracene	14	SW8270D	<1.05 ug/L		1.05	20	12/09/15 09:21	12/10/15 21:18	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzo (b) fluoranthene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzo (g,h,i) perylene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzo (k) fluoranthene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzoic acid	14	SW8270D	<1050 ug/L		1050	20	12/09/15 09:21	12/10/15 21:18	JHV
Benzyl alcohol	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
bis (2-Chloroethoxy) methane	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
bis (2-Chloroethyl) ether	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
bis (2-Chloroisopropyl) ether	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
bis (2-Ethylhexyl) phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Butyl benzyl phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Chrysene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Dibenz (a,h) anthracene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Dibenz (a,j) acridine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Dibenzofuran	14	SW8270D	<105 ug/L		105	20	12/09/15 09:21	12/10/15 21:18	JHV
Diethyl phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Dimethyl phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Di-n-butyl phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Di-n-octyl phthalate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Diphenylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Ethyl methanesulfonate	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
Fluoranthene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Fluorene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Hexachlorobenzene	14	SW8270D	<21.1 ug/L		21.1	20	12/09/15 09:21	12/10/15 21:18	JHV
Hexachlorobutadiene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Hexachlorocyclopentadiene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Indeno (1,2,3-cd) pyrene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Isophorone	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
m+p-Cresols	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Methyl methanesulfonate	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Naphthalene	14	SW8270D	553 ug/L		105	20	12/09/15 09:21	12/10/15 21:18	JHV
Nitrobenzene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
n-Nitrosodimethylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
n-Nitrosodi-n-butylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
n-Nitrosodi-n-propylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
n-Nitrosodiphenylamine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
n-Nitrosopiperidine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
o+m+p-Cresols	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
o-Cresol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
p-(Dimethylamino)azobenzene	14	SW8270D	<52.6 ug/L		52.6	20	12/09/15 09:21	12/10/15 21:18	JHV
p-Chloro-m-cresol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Pentachloronitrobenzene (quintozone)	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Pentachlorophenol	14	SW8270D	<421 ug/L		421	20	12/09/15 09:21	12/10/15 21:18	JHV
Phenacetin	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Phenanthrene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Phenol	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Pronamide	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Pyrene	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Pyridine	14	SW8270D	<211 ug/L		211	20	12/09/15 09:21	12/10/15 21:18	JHV
Surr: 2,4,6-Tribromophenol	14	SW8270D	14.4 %	DS	40-125		12/09/15 09:21	12/10/15 21:18	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW4 Laboratory Sample ID: 15L0217-14

Date/Time Sampled: 12/08/2015 12:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	14	SW8270D	%	DS	23-87		12/09/15 09:21	12/10/15 21:18	JHV
Surr: 2-Fluorophenol	14	SW8270D	26.6 %		14-52		12/09/15 09:21	12/10/15 21:18	JHV
Surr: Nitrobenzene-d5	14	SW8270D	60.4 %		40-110		12/09/15 09:21	12/10/15 21:18	JHV
Surr: Phenol-d5	14	SW8270D	19.9 %		5-33		12/09/15 09:21	12/10/15 21:18	JHV
Surr: p-Terphenyl-d14	14	SW8270D	%	DS	27-133		12/09/15 09:21	12/10/15 21:18	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	14	SW8015C	2.07 mg/L		0.50	1	12/09/15 14:02	12/10/15 00:49	JHV
Surr: Pentacosane	14	SW8015C	71.4 %		40-160		12/09/15 14:02	12/10/15 00:49	JHV
TPH-Semi-Volatiles (ORO)	14	SW8015C	1.7 mg/L		1.1	1	12/11/15 14:30	12/12/15 05:31	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1221	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1232	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1242	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1248	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1254	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
PCB as Aroclor 1260	14	SW8082A	<0.543 ug/L		0.543	1	12/11/15 09:44	12/11/15 23:46	SKS
Surr: DCB	14	SW8082A	30.0 %		30-105		12/11/15 09:44	12/11/15 23:46	SKS
Surr: TCMX	14	SW8082A	55.0 %		30-105		12/11/15 09:44	12/11/15 23:46	SKS



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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Metals (Total) by EPA 200 Series Methods

Silver	15	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG
Arsenic	15RE1	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/15/15 14:14	BG
Beryllium	15	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:32	BG
Cadmium	15	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:32	BG
Chromium	15	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG
Copper	15	EPA200.7 Rev 4.4	0.0159 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG
Mercury	15	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 16:06	MWL
Nickel	15	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG
Lead	15	EPA200.7 Rev 4.4	0.0313 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG
Antimony	15	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:31	MWL
Selenium	15	EPA200.9 R2.2	<0.0030 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:43	MWL
Thallium	15	EPA200.9 R2.2	<0.0020 mg/L		0.0020	1	12/09/15 14:00	12/15/15 11:15	MWL
Zinc	15	EPA200.7 Rev 4.4	0.0117 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:32	BG

Volatile Organic Compounds by GCMS

1,1,1,2-Tetrachloroethane	15	SW8260B	<4.00 ug/L		4.00	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1,1-Trichloroethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1,2,2-Tetrachloroethane	15	SW8260B	<4.00 ug/L		4.00	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1,2-Trichloroethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1-Dichloroethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1-Dichloroethylene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,1-Dichloropropene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2,3-Trichlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2,3-Trichloropropane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2,4-Trichlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2,4-Trimethylbenzene	15	SW8260B	215 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	15	SW8260B	<40.0 ug/L		40.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2-Dibromoethane (EDB)	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2-Dichlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2-Dichloroethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,2-Dichloropropane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,3,5-Trimethylbenzene	15	SW8260B	58.3 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,3-Dichlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,3-Dichloropropane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
1,4-Dichlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
2,2-Dichloropropane	15	SW8260B	<20.0 ug/L		20.0	10	12/10/15 17:36	12/10/15 17:36	MKD
2-Butanone (MEK)	15	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:36	12/10/15 17:36	MKD
2-Chlorotoluene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
2-Hexanone (MBK)	15	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:36	12/10/15 17:36	MKD
4-Chlorotoluene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
4-Isopropyltoluene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
4-Methyl-2-pentanone (MIBK)	15	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Acetone	15	SW8260B	<100 ug/L		100	10	12/10/15 17:36	12/10/15 17:36	MKD
Benzene	15	SW8260B	410 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Bromobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Bromochloromethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Bromodichloromethane	15	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:36	12/10/15 17:36	MKD
Bromoform	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Bromomethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Carbon disulfide	15	SW8260B	<100 ug/L		100	10	12/10/15 17:36	12/10/15 17:36	MKD
Carbon tetrachloride	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Chlorobenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Chloroform	15	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:36	12/10/15 17:36	MKD
Chloromethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
cis-1,2-Dichloroethylene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
cis-1,3-Dichloropropene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Dibromochloromethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Dibromomethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Dichlorodifluoromethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Di-isopropyl ether (DIPE)	15	SW8260B	<50.0 ug/L		50.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Ethylbenzene	15	SW8260B	596 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Hexachlorobutadiene	15	SW8260B	<8.00 ug/L		8.00	10	12/10/15 17:36	12/10/15 17:36	MKD
Iodomethane	15	SW8260B	<100 ug/L		100	10	12/10/15 17:36	12/10/15 17:36	MKD
Isopropylbenzene	15	SW8260B	37.7 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
m+p-Xylenes	15	SW8260B	463 ug/L		20.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Methylene chloride	15	SW8260B	<40.0 ug/L		40.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Methyl-t-butyl ether (MTBE)	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Naphthalene	15RE1	SW8260B	4800 ug/L		50.0	50	12/12/15 00:56	12/12/15 00:56	KCS
n-Butylbenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
n-Propylbenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
o-Xylene	15	SW8260B	249 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
sec-Butylbenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Styrene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
tert-Butylbenzene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Tetrachloroethylene (PCE)	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Toluene	15	SW8260B	49.2 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
trans-1,2-Dichloroethylene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Trichloroethylene	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Trichlorofluoromethane	15	SW8260B	<10.0 ug/L		10.0	10	12/10/15 17:36	12/10/15 17:36	MKD
Vinyl acetate	15	SW8260B	<100 ug/L		100	10	12/10/15 17:36	12/10/15 17:36	MKD
Vinyl chloride	15	SW8260B	<5.00 ug/L		5.00	10	12/10/15 17:36	12/10/15 17:36	MKD
Xylenes, Total	15	SW8260B	712 ug/L		30.0	10	12/10/15 17:36	12/10/15 17:36	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	15	SW8260B	100 %		70-120		12/10/15 17:36	12/10/15 17:36	MKD
<i>Surr: 4-Bromofluorobenzene</i>	15	SW8260B	97.4 %		75-120		12/10/15 17:36	12/10/15 17:36	MKD
<i>Surr: Dibromofluoromethane</i>	15	SW8260B	104 %		80-119		12/10/15 17:36	12/10/15 17:36	MKD
<i>Surr: Toluene-d8</i>	15	SW8260B	99.4 %		85-120		12/10/15 17:36	12/10/15 17:36	MKD
<i>Surr: 1,2-Dichloroethane-d4</i>	15RE1	SW8260B	96.4 %		70-120		12/12/15 00:56	12/12/15 00:56	KCS
<i>Surr: 4-Bromofluorobenzene</i>	15RE1	SW8260B	96.0 %		75-120		12/12/15 00:56	12/12/15 00:56	KCS
<i>Surr: Dibromofluoromethane</i>	15RE1	SW8260B	98.4 %		80-119		12/12/15 00:56	12/12/15 00:56	KCS
<i>Surr: Toluene-d8</i>	15RE1	SW8260B	96.2 %		85-120		12/12/15 00:56	12/12/15 00:56	KCS
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1,2,4-Trichlorobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1,2-Dichlorobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1,2-Diphenylhydrazine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1,3-Dichlorobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1,3-Dinitrobenzene	15	SW8270D	<53.2 ug/L		53.2	20	12/09/15 09:21	12/10/15 21:56	JHV
1,4-Dichlorobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
1-Naphthylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,3,4,6-Tetrachlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,4,5-Trichlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,4,6-Trichlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,4-Dichlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,4-Dimethylphenol	15	SW8270D	<10.6 ug/L		10.6	20	12/09/15 09:21	12/10/15 21:56	JHV
2,4-Dinitrophenol	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
2,4-Dinitrotoluene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,6-Dichlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2,6-Dinitrotoluene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Chloronaphthalene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Chlorophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Methylnaphthalene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Naphthylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Nitroaniline	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
2-Nitrophenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
3,3'-Dichlorobenzidine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
3-Methylcholanthrene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
3-Nitroaniline	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
4,6-Dinitro-2-methylphenol	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Aminobiphenyl	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Bromophenyl phenyl ether	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Chloroaniline	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Chlorophenyl phenyl ether	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Nitroaniline	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
4-Nitrophenol	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
7,12-Dimethylbenz (a) anthracene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Acenaphthene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Acenaphthylene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Acetophenone	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Aniline	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
Anthracene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzidine	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzo (a) anthracene	15	SW8270D	<1.06 ug/L		1.06	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzo (a) pyrene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzo (b) fluoranthene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzo (g,h,i) perylene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzo (k) fluoranthene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzoic acid	15	SW8270D	<1060 ug/L		1060	20	12/09/15 09:21	12/10/15 21:56	JHV
Benzyl alcohol	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
bis (2-Chloroethoxy) methane	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
bis (2-Chloroethyl) ether	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
bis (2-Chloroisopropyl) ether	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
bis (2-Ethylhexyl) phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Butyl benzyl phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Chrysene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Dibenz (a,h) anthracene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Dibenz (a,j) acridine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Dibenzofuran	15	SW8270D	<106 ug/L		106	20	12/09/15 09:21	12/10/15 21:56	JHV
Diethyl phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Dimethyl phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Di-n-butyl phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Di-n-octyl phthalate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Diphenylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Ethyl methanesulfonate	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
Fluoranthene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Fluorene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Hexachlorobenzene	15	SW8270D	<21.3 ug/L		21.3	20	12/09/15 09:21	12/10/15 21:56	JHV
Hexachlorobutadiene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Hexachlorocyclopentadiene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Hexachloroethane	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Indeno (1,2,3-cd) pyrene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Isophorone	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
m+p-Cresols	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Methyl methanesulfonate	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Naphthalene	15	SW8270D	1450 ug/L		106	20	12/09/15 09:21	12/10/15 21:56	JHV
Nitrobenzene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
n-Nitrosodimethylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
n-Nitrosodi-n-butylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
n-Nitrosodi-n-propylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
n-Nitrosodiphenylamine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
n-Nitrosopiperidine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
o+m+p-Cresols	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
o-Cresol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
p-(Dimethylamino)azobenzene	15	SW8270D	<53.2 ug/L		53.2	20	12/09/15 09:21	12/10/15 21:56	JHV
p-Chloro-m-cresol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Pentachloronitrobenzene (quintozone)	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Pentachlorophenol	15	SW8270D	<426 ug/L		426	20	12/09/15 09:21	12/10/15 21:56	JHV
Phenacetin	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Phenanthrene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Phenol	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW5 Laboratory Sample ID: 15L0217-15

Date/Time Sampled: 12/08/2015 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Pronamide	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Pyrene	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
Pyridine	15	SW8270D	<213 ug/L		213	20	12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: 2,4,6-Tribromophenol</i>	15	SW8270D	6.50 %	DS	40-125		12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: 2-Fluorobiphenyl</i>	15	SW8270D	%	DS	23-87		12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: 2-Fluorophenol</i>	15	SW8270D	24.3 %		14-52		12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: Nitrobenzene-d5</i>	15	SW8270D	39.1 %	DS	40-110		12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: Phenol-d5</i>	15	SW8270D	15.3 %		5-33		12/09/15 09:21	12/10/15 21:56	JHV
<i>Surr: p-Terphenyl-d14</i>	15	SW8270D	11.5 %	DS	27-133		12/09/15 09:21	12/10/15 21:56	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	15	SW8015C	3.68 mg/L		0.50	1	12/09/15 14:02	12/10/15 01:15	JHV
<i>Surr: Pentacosane</i>	15	SW8015C	74.2 %		40-160		12/09/15 14:02	12/10/15 01:15	JHV
TPH-Semi-Volatiles (ORO)	15	SW8015C	1.2 mg/L		1.1	1	12/11/15 14:30	12/12/15 05:56	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1221	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1232	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1242	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1248	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1254	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
PCB as Aroclor 1260	15	SW8082A	<0.556 ug/L		0.556	1	12/11/15 09:44	12/12/15 00:05	SKS
<i>Surr: DCB</i>	15	SW8082A	55.0 %		30-105		12/11/15 09:44	12/12/15 00:05	SKS
<i>Surr: TCMX</i>	15	SW8082A	80.0 %		30-105		12/11/15 09:44	12/12/15 00:05	SKS



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 200 Series Methods									
Silver	16	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:37	BG
Arsenic	16RE1	EPA200.7 Rev 4.4	<0.0100 mg/L		0.0100	1	12/09/15 14:00	12/15/15 14:19	BG
Beryllium	16	EPA200.7 Rev 4.4	<0.0040 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:36	BG
Cadmium	16	EPA200.7 Rev 4.4	0.0051 mg/L		0.0040	1	12/09/15 14:00	12/14/15 14:37	BG
Chromium	16	EPA200.7 Rev 4.4	0.0296 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:37	BG
Copper	16	EPA200.7 Rev 4.4	0.0291 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:36	BG
Mercury	16	EPA245.1 R3.0	<0.0002 mg/L		0.0002	1	12/14/15 10:18	12/14/15 16:08	MWL
Nickel	16	EPA200.7 Rev 4.4	0.0216 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:37	BG
Lead	16	EPA200.7 Rev 4.4	0.0894 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:37	BG
Antimony	16	EPA200.9 R2.2	<0.0050 mg/L		0.0050	1	12/09/15 14:00	12/15/15 11:36	MWL
Selenium	16	EPA200.9 R2.2	<0.0030 mg/L		0.0030	1	12/09/15 14:00	12/11/15 11:49	MWL
Thallium	16	EPA200.9 R2.2	<0.0020 mg/L		0.0020	1	12/09/15 14:00	12/15/15 11:21	MWL
Zinc	16	EPA200.7 Rev 4.4	0.0949 mg/L		0.0100	1	12/09/15 14:00	12/14/15 14:37	BG
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	16	SW8260B	<0.40 ug/L		0.40	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1,1-Trichloroethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1,2,2-Tetrachloroethane	16	SW8260B	<0.40 ug/L		0.40	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1,2-Trichloroethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1-Dichloroethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1-Dichloroethylene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,1-Dichloropropene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2,3-Trichlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2,3-Trichloropropane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2,4-Trichlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2,4-Trimethylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,2-Dibromo-3-chloropropane (DBCP)	16	SW8260B	<4.00 ug/L		4.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2-Dibromoethane (EDB)	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2-Dichlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2-Dichloroethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,2-Dichloropropane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,3,5-Trimethylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,3-Dichlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,3-Dichloropropane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
1,4-Dichlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
2,2-Dichloropropane	16	SW8260B	<2.00 ug/L		2.00	1	12/10/15 14:48	12/10/15 14:48	MKD
2-Butanone (MEK)	16	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:48	12/10/15 14:48	MKD
2-Chlorotoluene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
2-Hexanone (MBK)	16	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:48	12/10/15 14:48	MKD
4-Chlorotoluene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
4-Isopropyltoluene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
4-Methyl-2-pentanone (MIBK)	16	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Acetone	16	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:48	12/10/15 14:48	MKD
Benzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Bromobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Bromochloromethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Bromodichloromethane	16	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:48	12/10/15 14:48	MKD
Bromoform	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Bromomethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Carbon disulfide	16	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:48	12/10/15 14:48	MKD
Carbon tetrachloride	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Chlorobenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Chloroethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Chloroform	16	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:48	12/10/15 14:48	MKD
Chloromethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
cis-1,2-Dichloroethylene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
cis-1,3-Dichloropropene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Dibromochloromethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Dibromomethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Dichlorodifluoromethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Di-isopropyl ether (DIPE)	16	SW8260B	<5.00 ug/L		5.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Ethylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Hexachlorobutadiene	16	SW8260B	<0.80 ug/L		0.80	1	12/10/15 14:48	12/10/15 14:48	MKD
Iodomethane	16	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:48	12/10/15 14:48	MKD
Isopropylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
m+p-Xylenes	16	SW8260B	<2.00 ug/L		2.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Methylene chloride	16	SW8260B	<4.00 ug/L		4.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Methyl-t-butyl ether (MTBE)	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Naphthalene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
n-Butylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
n-Propylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
o-Xylene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
sec-Butylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Styrene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
tert-Butylbenzene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Tetrachloroethylene (PCE)	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Toluene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
trans-1,2-Dichloroethylene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
trans-1,3-Dichloropropene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Trichloroethylene	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Trichlorofluoromethane	16	SW8260B	<1.00 ug/L		1.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Vinyl acetate	16	SW8260B	<10.0 ug/L		10.0	1	12/10/15 14:48	12/10/15 14:48	MKD
Vinyl chloride	16	SW8260B	<0.50 ug/L		0.50	1	12/10/15 14:48	12/10/15 14:48	MKD
Xylenes, Total	16	SW8260B	<3.00 ug/L		3.00	1	12/10/15 14:48	12/10/15 14:48	MKD
Surr: 1,2-Dichloroethane-d4	16	SW8260B	104 %		70-120		12/10/15 14:48	12/10/15 14:48	MKD
Surr: 4-Bromofluorobenzene	16	SW8260B	96.4 %		75-120		12/10/15 14:48	12/10/15 14:48	MKD
Surr: Dibromofluoromethane	16	SW8260B	103 %		80-119		12/10/15 14:48	12/10/15 14:48	MKD
Surr: Toluene-d8	16	SW8260B	102 %		85-120		12/10/15 14:48	12/10/15 14:48	MKD
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1,2,4-Trichlorobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1,2-Dichlorobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1,2-Diphenylhydrazine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1,3-Dichlorobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1,3-Dinitrobenzene	16	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 20:39	JHV
1,4-Dichlorobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
1-Naphthylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,3,4,6-Tetrachlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4,5-Trichlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4,6-Trichlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4-Dichlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4-Dimethylphenol	16	SW8270D	<0.54 ug/L		0.54	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4-Dinitrophenol	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
2,4-Dinitrotoluene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
2,6-Dichlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2,6-Dinitrotoluene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Chloronaphthalene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Chlorophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Methylnaphthalene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Naphthylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Nitroaniline	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
2-Nitrophenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
3,3'-Dichlorobenzidine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
3-Methylcholanthrene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
3-Nitroaniline	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
4,6-Dinitro-2-methylphenol	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Aminobiphenyl	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Bromophenyl phenyl ether	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Chloroaniline	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Chlorophenyl phenyl ether	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Nitroaniline	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
4-Nitrophenol	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
7,12-Dimethylbenz (a) anthracene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Acenaphthene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Acenaphthylene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Acetophenone	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
Aniline	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
Anthracene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzidine	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzo (a) anthracene	16	SW8270D	<0.05 ug/L		0.05	1	12/09/15 09:21	12/10/15 20:39	JHV



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Benzo (a) pyrene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzo (b) fluoranthene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzo (g,h,i) perylene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzo (k) fluoranthene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzoic acid	16	SW8270D	<54.3 ug/L		54.3	1	12/09/15 09:21	12/10/15 20:39	JHV
Benzyl alcohol	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
bis (2-Chloroethoxy) methane	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
bis (2-Chloroethyl) ether	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
bis (2-Chloroisopropyl) ether	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
bis (2-Ethylhexyl) phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Butyl benzyl phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Chrysene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Dibenz (a,h) anthracene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Dibenz (a,j) acridine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Dibenzofuran	16	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 20:39	JHV
Diethyl phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Dimethyl phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Di-n-butyl phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Di-n-octyl phthalate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Diphenylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Ethyl methanesulfonate	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
Fluoranthene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Fluorene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Hexachlorobenzene	16	SW8270D	<1.09 ug/L		1.09	1	12/09/15 09:21	12/10/15 20:39	JHV
Hexachlorobutadiene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Hexachlorocyclopentadiene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Hexachloroethane	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Indeno (1,2,3-cd) pyrene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Isophorone	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
m+p-Cresols	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Methyl methanesulfonate	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Naphthalene	16	SW8270D	<5.43 ug/L		5.43	1	12/09/15 09:21	12/10/15 20:39	JHV
Nitrobenzene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
n-Nitrosodimethylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
n-Nitrosodi-n-butylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
n-Nitrosodi-n-propylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
n-Nitrosodiphenylamine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
n-Nitrosopiperidine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
o+m+p-Cresols	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
o-Cresol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
p-(Dimethylamino)azobenzene	16	SW8270D	<2.72 ug/L		2.72	1	12/09/15 09:21	12/10/15 20:39	JHV
p-Chloro-m-cresol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Pentachloronitrobenzene (quintozone)	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Pentachlorophenol	16	SW8270D	<21.7 ug/L		21.7	1	12/09/15 09:21	12/10/15 20:39	JHV
Phenacetin	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Phenanthrene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Phenol	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Pronamide	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Pyrene	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Pyridine	16	SW8270D	<10.9 ug/L		10.9	1	12/09/15 09:21	12/10/15 20:39	JHV
Surr: 2,4,6-Tribromophenol	16	SW8270D	68.9 %		40-125		12/09/15 09:21	12/10/15 20:39	JHV



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Laboratory Order ID: 15L0217

Analytical Results

Sample I.D. MW1-Dup Laboratory Sample ID: 15L0217-16

Date/Time Sampled: 12/08/2015 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Surr: 2-Fluorobiphenyl	16	SW8270D	43.3 %		23-87		12/09/15 09:21	12/10/15 20:39	JHV
Surr: 2-Fluorophenol	16	SW8270D	29.6 %		14-52		12/09/15 09:21	12/10/15 20:39	JHV
Surr: Nitrobenzene-d5	16	SW8270D	46.1 %		40-110		12/09/15 09:21	12/10/15 20:39	JHV
Surr: Phenol-d5	16	SW8270D	18.5 %		5-33		12/09/15 09:21	12/10/15 20:39	JHV
Surr: p-Terphenyl-d14	16	SW8270D	92.0 %		27-133		12/09/15 09:21	12/10/15 20:39	JHV
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	16	SW8015C	<0.50 mg/L		0.50	1	12/09/15 14:02	12/10/15 01:41	JHV
Surr: Pentacosane	16	SW8015C	93.2 %		40-160		12/09/15 14:02	12/10/15 01:41	JHV
TPH-Semi-Volatiles (ORO)	16	SW8015C	<1.1 mg/L		1.1	1	12/11/15 14:30	12/12/15 06:21	JHV
Organochlorine Pesticides and PCBs by GC/ECD									
PCB as Aroclor 1016	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1221	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1232	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1242	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1248	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1254	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
PCB as Aroclor 1260	16	SW8082A	<0.568 ug/L		0.568	1	12/11/15 09:44	12/12/15 00:23	SKS
Surr: DCB	16	SW8082A	85.0 %		30-105		12/11/15 09:44	12/12/15 00:23	SKS
Surr: TCMX	16	SW8082A	55.0 %		30-105		12/11/15 09:44	12/12/15 00:23	SKS



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Final Report

Client Name:	Timmons Group 1001 Boulders Parkway, Suite 300 Richmond VA, 23225	Date Issued:	12/16/2015 14:36
Submitted To:	John Russell	Project Number:	[none]
Client Site I.D.:	Fulton Gas Works	Purchase Order:	



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Analytical Summary

Preparation Method:

Preparation Method:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 200 Series Methods					
15L0217-11	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-11RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
15L0217-12	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-12RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
15L0217-13	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-13RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
15L0217-14	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-14RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
15L0217-15	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-15RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
15L0217-16	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0398	AL50062
15L0217-16RE1	50.0 mL / 50.0 mL	EPA200.7 Rev 4.4	BYL0243	SYL0420	AL50074
 Metals (Total) by EPA 200 Series Methods					
15L0217-11	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-11	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073
15L0217-11	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076
15L0217-12	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-12	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073
15L0217-12	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076
15L0217-13	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-13	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073
15L0217-13	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076
15L0217-14	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-14	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073
15L0217-14	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076
15L0217-15	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-15	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
15L0217-15	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076
15L0217-16	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0336	AL50059
15L0217-16	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0407	AL50073
15L0217-16	50.0 mL / 50.0 mL	EPA200.9 R2.2	BYL0245	SYL0423	AL50076

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
15L0217-01	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-02	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-03	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-04	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-05	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-06	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-07	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-08	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-09	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	
15L0217-10	1.00 g / 1.00 mL	SM18 2540G	BYL0250	SYL0285	

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
15L0217-01	1.07 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-01RE1	1.07 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-02	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-02RE1	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-03	1.00 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-03RE1	1.00 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-04	1.00 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-04RE1	1.00 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-05	1.04 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-06	1.01 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-06RE1	1.01 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-07	1.06 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-07RE1	1.06 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
15L0217-08	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-08RE1	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-09	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
15L0217-09RE1	1.02 g / 50.0 mL	SW6010C	BYL0225	SYL0402	AL50062
15L0217-10	1.08 g / 50.0 mL	SW6010C	BYL0225	SYL0389	AL50062
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS		Preparation Method:	SW3510C		
15L0217-11	920 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
15L0217-12	920 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
15L0217-13	960 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
15L0217-14	950 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
15L0217-15	940 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
15L0217-16	920 mL / 1.00 mL	SW8270D	BYL0222	SYL0330	AJ50039
Organochlorine Pesticides and PCBs by GC/ECD		Preparation Method:	SW3510C		
15L0217-11	890 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
15L0217-12	890 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
15L0217-13	890 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
15L0217-14	920 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
15L0217-15	900 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
15L0217-16	880 mL / 1.00 mL	SW8082A	BYL0273	SYL0334	AK50093
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Organochlorine Pesticides and PCBs by GC/ECD		Preparation Method:	SW3550B		
15L0217-01	30.4 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-02	31.1 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-03	30.0 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-04	32.0 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-05	30.9 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-06	30.4 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-07	30.2 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-08	30.0 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
15L0217-09	30.1 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
15L0217-10	30.0 g / 5.00 mL	SW8082A	BYL0235	SYL0298	AK50093
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS		Preparation Method:	SW3550C		
15L0217-01	30.1 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-02	30.3 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-03	30.2 g / 2.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-04	30.1 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-05	30.0 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-06	30.7 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-07	30.5 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-08	30.1 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-08RE1	30.1 g / 1.00 mL	SW8270D	BYL0292	SYL0408	AJ50039
15L0217-09	31.3 g / 2.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-09RE1	31.3 g / 2.00 mL	SW8270D	BYL0292	SYL0408	AJ50039
15L0217-09RE2	31.3 g / 2.00 mL	SW8270D	BYL0292	SYL0408	AJ50039
15L0217-10	30.0 g / 1.00 mL	SW8270D	BYL0292	SYL0374	AJ50039
15L0217-10RE1	30.0 g / 1.00 mL	SW8270D	BYL0292	SYL0408	AJ50039
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS		Preparation Method:	SW5030B		
15L0217-01	5.00 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-02	5.05 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-03	5.09 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-04	5.04 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-05	5.16 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-05RE1	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-05RE2	5.00 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-06	1.06 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-07	5.00 g / 5.00 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-08	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-08RE1	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0362	AL50051
15L0217-08RE2	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0366	AL50051



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
15L0217-09	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-09RE1	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0362	AL50051
15L0217-09RE2	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0366	AL50051
15L0217-09RE3	10.0 g / 10.0 mL	SW8260B	BYL0290	SYL0412	AL50051
15L0217-10	10.1 g / 10.0 mL	SW8260B	BYL0290	SYL0324	AL50051
15L0217-10RE1	10.1 g / 10.0 mL	SW8260B	BYL0290	SYL0362	AL50051
15L0217-10RE2	10.1 g / 10.0 mL	SW8260B	BYL0290	SYL0366	AL50051
15L0217-10RE3	10.1 g / 10.0 mL	SW8260B	BYL0290	SYL0412	AL50051
Volatile Organic Compounds by GCMS		Preparation Method:	SW5030B		
15L0217-11	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
15L0217-12	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
15L0217-13	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
15L0217-14	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
15L0217-15	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
15L0217-16	5.00 mL / 5.00 mL	SW8260B	BYL0298	SYL0337	AL50053
Volatile Organic Compounds by GCMS		Preparation Method:	SW5030B		
15L0217-02RE1	5.01 g / 5.00 mL	SW8260B	BYL0314	SYL0353	AL50053
15L0217-03RE1	5.14 g / 5.00 mL	SW8260B	BYL0314	SYL0353	AL50053
15L0217-04RE1	5.01 g / 5.00 mL	SW8260B	BYL0314	SYL0353	AL50053
Volatile Organic Compounds by GCMS		Preparation Method:	SW5030B		
15L0217-15RE1	5.00 mL / 5.00 mL	SW8260B	BYL0325	SYL0357	AL50051
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 200 Series Methods		Preparation Method:	SW7470A		
15L0217-11	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
15L0217-12	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
15L0217-13	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
15L0217-14	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
15L0217-15	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
15L0217-16	20.0 mL / 20.0 mL	EPA245.1 R3.0	BYL0319	SYL0393	AL50070
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
15L0217-01	0.520 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-02	0.510 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-02RE1	0.510 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-03	0.515 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-04	0.580 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-05	0.549 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-06	0.540 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-07	0.511 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-07RE1	0.511 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-08	0.539 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-09	0.587 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-09RE1	0.587 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-10	0.584 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
15L0217-10RE1	0.584 g / 20.0 mL	SW7471B	BYL0291	SYL0396	AL50071
Semivolatile Hydrocarbons by GC					
15L0217-11	920 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
15L0217-12	950 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
15L0217-13	930 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
15L0217-14	940 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
15L0217-15	950 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
15L0217-16	920 mL / 1.00 mL	SW8015C	BYL0232	SYL0283	AJ50157
Semivolatile Hydrocarbons by GC					
15L0217-01	50.1 g / 1.00 mL	SW8015C	BYL0236	SYL0315	AL50035
15L0217-02	51.2 g / 1.00 mL	SW8015C	BYL0236	SYL0315	AL50035
Semivolatile Hydrocarbons by GC					
15L0217-01	50.1 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-01RE1	50.1 g / 1.00 mL	SW8015C	BYL0237	SYL0327	AA50059
15L0217-02	50.8 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-03	54.0 g / 2.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-04	54.6 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-05	50.0 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059



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Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
15L0217-06	30.4 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-07	51.5 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-08	53.3 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-09	52.7 g / 2.00 mL	SW8015C	BYL0237	SYL0313	AA50059
15L0217-10	50.4 g / 1.00 mL	SW8015C	BYL0237	SYL0313	AA50059
Semivolatile Hydrocarbons by GC					
		Preparation Method:	SW8100		
15L0217-03	53.4 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-04	50.5 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-05	54.2 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-06	50.4 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-06RE1	50.4 g / 1.00 mL	SW8015C	BYL0267	SYL0390	AH50153
15L0217-07	50.2 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-08	21.2 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-09	50.1 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
15L0217-10	50.7 g / 1.00 mL	SW8015C	BYL0267	SYL0347	AH50153
Semivolatile Hydrocarbons by GC					
		Preparation Method:	SW8100		
15L0217-11	920 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059
15L0217-12	910 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059
15L0217-13	940 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059
15L0217-14	950 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059
15L0217-15	910 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059
15L0217-16	910 mL / 1.00 mL	SW8015C	BYL0297	SYL0349	AA50059



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0243 - EPA200.2/R2.8

<u>Blank (BYL0243-BLK1)</u>		Prepared: 12/09/2015 Analyzed: 12/14/2015							
Beryllium	<0.0040 mg/L	0.0040	mg/L						
Cadmium	<0.0040 mg/L	0.0040	mg/L						
Chromium	<0.0100 mg/L	0.0100	mg/L						
Copper	<0.0100 mg/L	0.0100	mg/L						
Lead	<0.0100 mg/L	0.0100	mg/L						
Nickel	<0.0100 mg/L	0.0100	mg/L						
Silver	<0.0100 mg/L	0.0100	mg/L						
Zinc	<0.0100 mg/L	0.0100	mg/L						
<u>Blank (BYL0243-BLK2)</u>		Prepared: 12/09/2015 Analyzed: 12/15/2015							
Arsenic	<0.0100 mg/L	0.0100	mg/L						
Copper	<0.0100 mg/L	0.0100	mg/L						
<u>LCS (BYL0243-BS1)</u>		Prepared: 12/09/2015 Analyzed: 12/14/2015							
Beryllium	0.468 mg/L	0.0040	mg/L	0.500		93.5	80-120		
Cadmium	0.462 mg/L	0.0040	mg/L	0.500		92.5	80-120		
Chromium	0.467 mg/L	0.0100	mg/L	0.500		93.4	80-120		
Copper	0.465 mg/L	0.0100	mg/L	0.500		93.0	80-120		
Lead	0.461 mg/L	0.0100	mg/L	0.500		92.1	80-120		
Nickel	0.468 mg/L	0.0100	mg/L	0.500		93.7	80-120		
Silver	0.0938 mg/L	0.0100	mg/L	0.100		93.8	80-120		
Zinc	0.462 mg/L	0.0100	mg/L	0.500		92.4	80-120		
<u>LCS (BYL0243-BS3)</u>		Prepared: 12/09/2015 Analyzed: 12/15/2015							
Arsenic	0.512 mg/L	0.0100	mg/L	0.500		102	80-120		
Copper	0.496 mg/L	0.0100	mg/L	0.500		99.2	80-120		
<u>LCS Dup (BYL0243-BSD1)</u>		Prepared: 12/09/2015 Analyzed: 12/14/2015							
Beryllium	0.478 mg/L	0.0040	mg/L	0.500		95.6	80-120	2.15	20
Cadmium	0.472 mg/L	0.0040	mg/L	0.500		94.4	80-120	2.13	20
Chromium	0.476 mg/L	0.0100	mg/L	0.500		95.2	80-120	1.88	20
Copper	0.475 mg/L	0.0100	mg/L	0.500		95.0	80-120	2.15	20
Lead	0.467 mg/L	0.0100	mg/L	0.500		93.5	80-120	1.41	20



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0243 - EPA200.2/R2.8

<u>LCS Dup (BYL0243-BSD1)</u> Prepared: 12/09/2015 Analyzed: 12/14/2015										
Nickel	0.476 mg/L	0.0100	mg/L	0.500		95.2	80-120	1.68	20	
Silver	0.0957 mg/L	0.0100	mg/L	0.100		95.7	80-120	2.02	20	
Zinc	0.470 mg/L	0.0100	mg/L	0.500		93.9	80-120	1.64	20	
<u>LCS Dup (BYL0243-BSD3)</u> Prepared: 12/09/2015 Analyzed: 12/15/2015										
Arsenic	0.512 mg/L	0.0100	mg/L	0.500		102	80-120	0.0512	20	
Copper	0.501 mg/L	0.0100	mg/L	0.500		100	80-120	1.02	20	
<u>Matrix Spike (BYL0243-MS1)</u> Source: 15L0217-16 Prepared: 12/09/2015 Analyzed: 12/14/2015										
Beryllium	0.460 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	92.1	75-125				
Cadmium	0.458 mg/L	0.0040	mg/L	0.500 0.0051 mg/L	90.6	75-125				
Chromium	0.495 mg/L	0.0100	mg/L	0.500 0.0296 mg/L	93.1	75-125				
Copper	0.507 mg/L	0.0100	mg/L	0.500 0.0291 mg/L	95.7	75-125				
Lead	0.541 mg/L	0.0100	mg/L	0.500 0.0894 mg/L	90.3	75-125				
Nickel	0.476 mg/L	0.0100	mg/L	0.500 0.0216 mg/L	90.8	75-125				
Silver	0.0937 mg/L	0.0100	mg/L	0.100 <0.0100 mg/L	93.7	75-125				
Zinc	0.546 mg/L	0.0100	mg/L	0.500 0.0949 mg/L	90.2	75-125				
<u>Matrix Spike (BYL0243-MS2)</u> Source: 15L0226-03 Prepared: 12/09/2015 Analyzed: 12/14/2015										
Arsenic	0.480 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	96.0	75-125				
Beryllium	0.525 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	105	75-125				
Cadmium	0.517 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	103	75-125				
Chromium	0.521 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	104	75-125				
Copper	0.521 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	104	75-125				
Lead	0.494 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	98.9	75-125				
Nickel	0.516 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	103	75-125				
Silver	0.104 mg/L	0.0100	mg/L	0.100 <0.0100 mg/L	104	75-125				
Zinc	0.531 mg/L	0.0100	mg/L	0.500 0.0177 mg/L	103	75-125				



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0243 - EPA200.2/R2.8

Matrix Spike (BYL0243-MS5)		Source: 15L0217-16RE1		Prepared: 12/09/2015 Analyzed: 12/15/2015					
Arsenic	0.518 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	102	75-125			
Copper	0.535 mg/L	0.0100	mg/L	0.500 0.0291 mg/L	101	75-125			
Matrix Spike Dup (BYL0243-MSD1)		Source: 15L0217-16		Prepared: 12/09/2015 Analyzed: 12/14/2015					
Beryllium	0.467 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	93.3	75-125	1.36	20	
Cadmium	0.464 mg/L	0.0040	mg/L	0.500 0.0051 mg/L	91.8	75-125	1.31	20	
Chromium	0.502 mg/L	0.0100	mg/L	0.500 0.0296 mg/L	94.4	75-125	1.29	20	
Copper	0.514 mg/L	0.0100	mg/L	0.500 0.0291 mg/L	96.9	75-125	1.25	20	
Lead	0.544 mg/L	0.0100	mg/L	0.500 0.0894 mg/L	90.9	75-125	0.573	20	
Nickel	0.479 mg/L	0.0100	mg/L	0.500 0.0216 mg/L	91.5	75-125	0.779	20	
Silver	0.0954 mg/L	0.0100	mg/L	0.100 <0.0100 mg/L	95.4	75-125	1.83	20	
Zinc	0.554 mg/L	0.0100	mg/L	0.500 0.0949 mg/L	91.8	75-125	1.47	20	
Matrix Spike Dup (BYL0243-MSD2)		Source: 15L0226-03		Prepared: 12/09/2015 Analyzed: 12/14/2015					
Arsenic	0.491 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	98.2	75-125	2.22	20	
Beryllium	0.533 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	107	75-125	1.46	20	
Cadmium	0.525 mg/L	0.0040	mg/L	0.500 <0.0040 mg/L	105	75-125	1.50	20	
Chromium	0.529 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	105	75-125	1.49	20	
Copper	0.529 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	106	75-125	1.50	20	
Lead	0.502 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	100	75-125	1.56	20	
Nickel	0.525 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	105	75-125	1.76	20	
Silver	0.105 mg/L	0.0100	mg/L	0.100 <0.0100 mg/L	105	75-125	0.959	20	
Zinc	0.540 mg/L	0.0100	mg/L	0.500 0.0177 mg/L	104	75-125	1.73	20	
Matrix Spike Dup (BYL0243-MSD5)		Source: 15L0217-16RE1		Prepared: 12/09/2015 Analyzed: 12/15/2015					
Arsenic	0.517 mg/L	0.0100	mg/L	0.500 <0.0100 mg/L	102	75-125	0.259	20	
Copper	0.544 mg/L	0.0100	mg/L	0.500 0.0291 mg/L	103	75-125	1.68	20	



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0245 - EPA200.9/R2.2

<u>Blank (BYL0245-BLK1)</u>						Prepared: 12/09/2015 Analyzed: 12/11/2015			
Selenium	<0.0030 mg/L	0.0030	mg/L						
<u>Blank (BYL0245-BLK2)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Thallium	<0.0020 mg/L	0.0020	mg/L						
<u>Blank (BYL0245-BLK3)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Antimony	<0.0050 mg/L	0.0050	mg/L						
<u>LCS (BYL0245-BS1)</u>						Prepared: 12/09/2015 Analyzed: 12/11/2015			
Selenium	0.0204 mg/L	0.0030	mg/L	0.0200		102	80-120		
<u>LCS (BYL0245-BS2)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Thallium	0.0204 mg/L	0.0020	mg/L	0.0200		102	80-120		
<u>LCS (BYL0245-BS3)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Antimony	0.0212 mg/L	0.0050	mg/L	0.0200		106	80-120		
<u>LCS Dup (BYL0245-BSD1)</u>						Prepared: 12/09/2015 Analyzed: 12/11/2015			
Selenium	0.0205 mg/L	0.0030	mg/L	0.0200		102	80-120	0.538	20
<u>LCS Dup (BYL0245-BSD2)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Thallium	0.0214 mg/L	0.0020	mg/L	0.0200		107	80-120	4.56	20
<u>LCS Dup (BYL0245-BSD3)</u>						Prepared: 12/09/2015 Analyzed: 12/15/2015			
Antimony	0.0217 mg/L	0.0050	mg/L	0.0200		108	80-120	2.10	20
<u>Matrix Spike (BYL0245-MS1)</u>		Source: 15L0217-16				Prepared: 12/09/2015 Analyzed: 12/11/2015			
Selenium	0.0158 mg/L	0.0030	mg/L	0.0200 <0.0030 mg/L		78.9	75-125		



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0245 - EPA200.9/R2.2

Matrix Spike (BYL0245-MS2)	Source: 15L0226-03	Prepared: 12/09/2015 Analyzed: 12/11/2015							
Selenium	0.0199 mg/L	0.0030	mg/L	0.0200 <0.0030 mg/L	99.4	75-125			
Matrix Spike (BYL0245-MS3)	Source: 15L0217-16	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Thallium	<0.0020 mg/L	0.0020	mg/L	0.0200 <0.0020 mg/L	75-125				M
Matrix Spike (BYL0245-MS4)	Source: 15L0217-16	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Antimony	<0.0050 mg/L	0.0050	mg/L	0.0200 <0.0050 mg/L	16.4	75-125			J M
Matrix Spike (BYL0245-MS5)	Source: 15L0226-03	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Thallium	0.0198 mg/L	0.0020	mg/L	0.0200 <0.0020 mg/L	99.0	75-125			
Matrix Spike (BYL0245-MS6)	Source: 15L0226-03	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Antimony	0.0149 mg/L	0.0050	mg/L	0.0200 <0.0050 mg/L	74.4	75-125			M
Matrix Spike Dup (BYL0245-MSD1)	Source: 15L0217-16	Prepared: 12/09/2015 Analyzed: 12/11/2015							
Selenium	0.0158 mg/L	0.0030	mg/L	0.0200 <0.0030 mg/L	79.1	75-125	0.275	20	
Matrix Spike Dup (BYL0245-MSD2)	Source: 15L0226-03	Prepared: 12/09/2015 Analyzed: 12/11/2015							
Selenium	0.0194 mg/L	0.0030	mg/L	0.0200 <0.0030 mg/L	97.0	75-125	2.40	20	
Matrix Spike Dup (BYL0245-MSD3)	Source: 15L0217-16	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Thallium	<0.0020 mg/L	0.0020	mg/L	0.0200 <0.0020 mg/L	75-125			20	M
Matrix Spike Dup (BYL0245-MSD4)	Source: 15L0217-16	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Antimony	<0.0050 mg/L	0.0050	mg/L	0.0200 <0.0050 mg/L	15.2	75-125	7.14	20	J M
Matrix Spike Dup (BYL0245-MSD5)	Source: 15L0226-03	Prepared: 12/09/2015 Analyzed: 12/15/2015							
Thallium	0.0199 mg/L	0.0020	mg/L	0.0200 <0.0020 mg/L	99.3	75-125	0.251	20	



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Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 200 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0245 - EPA200.9/R2.2

Matrix Spike Dup (BYL0245-MSD6)		Source: 15L0226-03		Prepared: 12/09/2015 Analyzed: 12/15/2015					
Antimony	0.0151 mg/L	0.0050	mg/L	0.0200 <0.0050 mg/L	75.3	75-125	1.18	20	

Batch BYL0319 - SW7470A

Blank (BYL0319-BLK1)		Prepared & Analyzed: 12/14/2015							
Mercury	<0.0002 mg/L	0.0002	mg/L						

LCS (BYL0319-BS1)		Prepared & Analyzed: 12/14/2015							
Mercury	0.0026 mg/L	0.0002	mg/L	0.00250	105	85-115			

LCS Dup (BYL0319-BSD1)		Prepared & Analyzed: 12/14/2015							
Mercury	0.0027 mg/L	0.0002	mg/L	0.00250	106	85-115	0.998	20	

Matrix Spike (BYL0319-MS1)		Source: 15L0217-11		Prepared & Analyzed: 12/14/2015					
Mercury	0.0026 mg/L	0.0002	mg/L	0.00250 <0.0002 mg/L	103	70-130			

Matrix Spike Dup (BYL0319-MSD1)		Source: 15L0217-11		Prepared & Analyzed: 12/14/2015					
Mercury	0.0026 mg/L	0.0002	mg/L	0.00250 <0.0002 mg/L	103	70-130	0.0669	20	



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0225 - SW3050B

Blank (BYL0225-BLK1)				Prepared: 12/09/2015 Analyzed: 12/14/2015			
Nickel	<0.500 mg/kg	0.500	mg/kg				
Chromium	<0.500 mg/kg	0.500	mg/kg				
Thallium	<2.50 mg/kg	2.50	mg/kg				
Copper	<2.50 mg/kg	2.50	mg/kg				
Silver	<0.500 mg/kg	0.500	mg/kg				
Cadmium	<0.200 mg/kg	0.200	mg/kg				
Beryllium	<0.200 mg/kg	0.200	mg/kg				
Selenium	<2.50 mg/kg	2.50	mg/kg				
Antimony	<5.00 mg/kg	5.00	mg/kg				
Lead	<0.500 mg/kg	0.500	mg/kg				
Arsenic	<1.00 mg/kg	1.00	mg/kg				
Zinc	<0.500 mg/kg	0.500	mg/kg				

LCS (BYL0225-BS1)				Prepared: 12/09/2015 Analyzed: 12/14/2015			
Antimony	101 mg/kg	5.00	mg/kg	97.3	104	80-120	
Silver	5.06 mg/kg	0.500	mg/kg	4.86	104	80-120	
Selenium	94.9 mg/kg	2.50	mg/kg	97.3	97.6	80-120	
Cadmium	101 mg/kg	0.200	mg/kg	97.3	104	80-120	
Chromium	104 mg/kg	0.500	mg/kg	97.3	107	80-120	
Copper	105 mg/kg	2.50	mg/kg	97.3	108	80-120	
Nickel	103 mg/kg	0.500	mg/kg	97.3	106	80-120	
Lead	102 mg/kg	0.500	mg/kg	97.3	105	80-120	
Thallium	102 mg/kg	2.50	mg/kg	97.3	105	80-120	
Beryllium	99.2 mg/kg	0.200	mg/kg	97.3	102	80-120	
Arsenic	100 mg/kg	1.00	mg/kg	97.3	103	80-120	
Zinc	101 mg/kg	0.500	mg/kg	97.3	104	80-120	

LCS Dup (BYL0225-BSD1)				Prepared: 12/09/2015 Analyzed: 12/14/2015			
Chromium	103 mg/kg	0.500	mg/kg	97.0	107	80-120	0.747
Nickel	103 mg/kg	0.500	mg/kg	97.0	106	80-120	0.671
Silver	5.02 mg/kg	0.500	mg/kg	4.85	104	80-120	0.766
Copper	104 mg/kg	2.50	mg/kg	97.0	107	80-120	0.887
							20
							20
							20



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0225 - SW3050B

LCS Dup (BYL0225-BSD1)									
Prepared: 12/09/2015 Analyzed: 12/14/2015									
Arsenic	97.9 mg/kg	1.00	mg/kg	97.0		101	80-120	2.12	20
Beryllium	98.5 mg/kg	0.200	mg/kg	97.0		102	80-120	0.743	20
Selenium	92.9 mg/kg	2.50	mg/kg	97.0		95.8	80-120	2.10	20
Thallium	101 mg/kg	2.50	mg/kg	97.0		104	80-120	1.51	20
Cadmium	101 mg/kg	0.200	mg/kg	97.0		104	80-120	0.750	20
Antimony	99.3 mg/kg	5.00	mg/kg	97.0		102	80-120	1.78	20
Lead	100 mg/kg	0.500	mg/kg	97.0		103	80-120	1.94	20
Zinc	100 mg/kg	0.500	mg/kg	97.0		103	80-120	1.15	20

Matrix Spike (BYL0225-MS1)									
Source: 15L0217-05 Prepared: 12/09/2015 Analyzed: 12/14/2015									
Silver	4.56 mg/kg	0.500	mg/kg	4.82 <0.500 mg/kg	94.5	75-125			
Antimony	32.2 mg/kg	5.00	mg/kg	96.4 <5.00 mg/kg	33.4	75-125			M
Selenium	87.1 mg/kg	2.50	mg/kg	96.4 <2.50 mg/kg	90.3	75-125			
Thallium	95.0 mg/kg	2.50	mg/kg	96.4 <2.50 mg/kg	98.5	75-125			
Lead	105 mg/kg	0.500	mg/kg	96.4 8.87 mg/kg	99.7	75-125			
Chromium	110 mg/kg	0.500	mg/kg	96.4 7.57 mg/kg	107	75-125			
Beryllium	92.6 mg/kg	0.200	mg/kg	96.4 <0.200 mg/kg	96.0	75-125			
Cadmium	95.6 mg/kg	0.200	mg/kg	96.4 0.688 mg/kg	98.4	75-125			
Nickel	103 mg/kg	0.500	mg/kg	96.4 3.64 mg/kg	103	75-125			
Arsenic	87.2 mg/kg	1.00	mg/kg	96.4 <1.00 mg/kg	90.4	75-125			
Copper	107 mg/kg	2.50	mg/kg	96.4 5.71 mg/kg	106	75-125			
Zinc	120 mg/kg	0.500	mg/kg	96.4 22.0 mg/kg	101	75-125			

Matrix Spike (BYL0225-MS2)									
Source: 15L0217-10 Prepared: 12/09/2015 Analyzed: 12/14/2015									
Thallium	98.4 mg/kg	2.50	mg/kg	97.0 12.1 mg/kg	88.9	75-125			
Beryllium	96.2 mg/kg	0.200	mg/kg	97.0 <0.200 mg/kg	99.2	75-125			
Copper	113 mg/kg	2.50	mg/kg	97.0 12.7 mg/kg	104	75-125			
Nickel	103 mg/kg	0.500	mg/kg	97.0 3.51 mg/kg	103	75-125			
Antimony	52.7 mg/kg	5.00	mg/kg	97.0 <5.00 mg/kg	54.4	75-125			M
Chromium	112 mg/kg	0.500	mg/kg	97.0 9.06 mg/kg	106	75-125			
Lead	216 mg/kg	0.500	mg/kg	97.0 93.4 mg/kg	127	75-125			M
Silver	4.89 mg/kg	0.500	mg/kg	4.85 <0.500 mg/kg	101	75-125			



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0225 - SW3050B

Matrix Spike (BYL0225-MS2)		Source: 15L0217-10		Prepared: 12/09/2015 Analyzed: 12/14/2015						
Selenium	91.8 mg/kg	2.50	mg/kg	97.0 <2.50 mg/kg	94.7	75-125				
Cadmium	101 mg/kg	0.200	mg/kg	97.0 1.03 mg/kg	103	75-125				
Arsenic	75.1 mg/kg	1.00	mg/kg	97.0 <1.00 mg/kg	77.5	75-125				
Zinc	112 mg/kg	0.500	mg/kg	97.0 12.6 mg/kg	102	75-125				
Matrix Spike Dup (BYL0225-MSD1)		Source: 15L0217-05		Prepared: 12/09/2015 Analyzed: 12/14/2015						
Antimony	30.9 mg/kg	5.00	mg/kg	97.7 <5.00 mg/kg	31.6	75-125	4.22	20	M	
Arsenic	89.0 mg/kg	1.00	mg/kg	97.7 <1.00 mg/kg	91.1	75-125	2.03	20		
Copper	112 mg/kg	2.50	mg/kg	97.7 5.71 mg/kg	109	75-125	4.08	20		
Thallium	93.7 mg/kg	2.50	mg/kg	97.7 <2.50 mg/kg	95.9	75-125	1.40	20		
Silver	4.60 mg/kg	0.500	mg/kg	4.88 <0.500 mg/kg	94.2	75-125	0.885	20		
Nickel	102 mg/kg	0.500	mg/kg	97.7 3.64 mg/kg	100	75-125	0.978	20		
Beryllium	95.4 mg/kg	0.200	mg/kg	97.7 <0.200 mg/kg	97.6	75-125	2.92	20		
Cadmium	98.0 mg/kg	0.200	mg/kg	97.7 0.688 mg/kg	99.6	75-125	2.50	20		
Chromium	111 mg/kg	0.500	mg/kg	97.7 7.57 mg/kg	106	75-125	0.572	20		
Selenium	89.5 mg/kg	2.50	mg/kg	97.7 <2.50 mg/kg	91.7	75-125	2.73	20		
Lead	108 mg/kg	0.500	mg/kg	97.7 8.87 mg/kg	102	75-125	2.93	20		
Zinc	129 mg/kg	0.500	mg/kg	97.7 22.0 mg/kg	110	75-125	7.52	20		
Matrix Spike Dup (BYL0225-MSD2)		Source: 15L0217-10		Prepared: 12/09/2015 Analyzed: 12/14/2015						
Cadmium	99.5 mg/kg	0.200	mg/kg	94.5 1.03 mg/kg	104	75-125	0.974	20		
Selenium	91.2 mg/kg	2.50	mg/kg	94.5 <2.50 mg/kg	96.5	75-125	0.680	20		
Nickel	102 mg/kg	0.500	mg/kg	94.5 3.51 mg/kg	104	75-125	1.10	20		
Thallium	96.8 mg/kg	2.50	mg/kg	94.5 12.1 mg/kg	89.6	75-125	1.63	20		
Copper	108 mg/kg	2.50	mg/kg	94.5 12.7 mg/kg	100	75-125	5.35	20		
Lead	193 mg/kg	0.500	mg/kg	94.5 93.4 mg/kg	105	75-125	11.5	20		
Beryllium	96.1 mg/kg	0.200	mg/kg	94.5 <0.200 mg/kg	102	75-125	0.137	20		
Chromium	108 mg/kg	0.500	mg/kg	94.5 9.06 mg/kg	105	75-125	3.39	20		
Antimony	56.7 mg/kg	5.00	mg/kg	94.5 <5.00 mg/kg	60.0	75-125	7.24	20	M	
Silver	4.87 mg/kg	0.500	mg/kg	4.73 <0.500 mg/kg	103	75-125	0.545	20		
Arsenic	80.7 mg/kg	1.00	mg/kg	94.5 <1.00 mg/kg	85.4	75-125	7.20	20		
Zinc	107 mg/kg	0.500	mg/kg	94.5 12.6 mg/kg	100	75-125	4.05	20		



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Final Report

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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0291 - SW7471B

<u>Blank (BYL0291-BLK1)</u>									Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	<0.008 mg/kg	0.008	mg/kg						
<u>LCS (BYL0291-BS1)</u>									Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.100 mg/kg	0.008	mg/kg	0.0965		103	80-120		
<u>LCS Dup (BYL0291-BSD1)</u>									Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.101 mg/kg	0.008	mg/kg	0.0980		103	80-120	1.61	20
<u>Matrix Spike (BYL0291-MS1)</u>		Source: 15L0217-01							Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.140 mg/kg	0.008	mg/kg	0.0967	0.070 mg/kg	72.3	80-120		M
<u>Matrix Spike (BYL0291-MS2)</u>		Source: 15L0152-01							Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.126 mg/kg	0.008	mg/kg	0.0923	0.028 mg/kg	106	80-120		
<u>Matrix Spike Dup (BYL0291-MSD1)</u>		Source: 15L0217-01							Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.155 mg/kg	0.008	mg/kg	0.0938	0.070 mg/kg	90.6	80-120	10.2	20
<u>Matrix Spike Dup (BYL0291-MSD2)</u>		Source: 15L0152-01							Prepared: 12/10/2015 Analyzed: 12/11/2015
Mercury	0.130 mg/kg	0.008	mg/kg	0.0958	0.028 mg/kg	106	80-120	3.28	20



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0290 - SW5030B

Blank (BYL0290-BLK1) Prepared & Analyzed: 12/10/2015

1,1,1,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,1-Trichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,2,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,2-Trichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloropropene	<5.00 ug/kg	5.00	ug/kg					
1,2,3-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2,3-Trichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,2,4-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2,4-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg					
1,2-Dibromo-3-chloropropane (DBCP)	<5.00 ug/kg	5.00	ug/kg					
1,2-Dibromoethane (EDB)	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,3,5-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg					
1,3-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,3-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,4-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
2,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
2-Butanone (MEK)	<5.00 ug/kg	5.00	ug/kg					
2-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg					
2-Hexanone (MBK)	<5.00 ug/kg	5.00	ug/kg					
4-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg					
4-Isopropyltoluene	<5.00 ug/kg	5.00	ug/kg					
4-Methyl-2-pentanone (MIBK)	<5.00 ug/kg	5.00	ug/kg					
Acetone	<10.0 ug/kg	10.0	ug/kg					
Benzene	<5.00 ug/kg	5.00	ug/kg					
Bromobenzene	<5.00 ug/kg	5.00	ug/kg					
Bromochloromethane	<5.00 ug/kg	5.00	ug/kg					



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0290 - SW5030B

Blank (BYL0290-BLK1) Prepared & Analyzed: 12/10/2015

Bromodichloromethane	<5.00 ug/kg	5.00	ug/kg					
Bromoform	<5.00 ug/kg	5.00	ug/kg					
Bromomethane	<5.00 ug/kg	5.00	ug/kg					
Carbon disulfide	<5.00 ug/kg	5.00	ug/kg					
Carbon tetrachloride	<5.00 ug/kg	5.00	ug/kg					
Chlorobenzene	<5.00 ug/kg	5.00	ug/kg					
Chloroethane	<5.00 ug/kg	5.00	ug/kg					
Chloroform	<5.00 ug/kg	5.00	ug/kg					
Chloromethane	<5.00 ug/kg	5.00	ug/kg					
cis-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg					
cis-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg					
Dibromochloromethane	<5.00 ug/kg	5.00	ug/kg					
Dibromomethane	<5.00 ug/kg	5.00	ug/kg					
Dichlorodifluoromethane	<5.00 ug/kg	5.00	ug/kg					
Di-isopropyl ether (DIPE)	<5.00 ug/kg	5.00	ug/kg					
Ethylbenzene	<5.00 ug/kg	5.00	ug/kg					
Hexachlorobutadiene	<5.00 ug/kg	5.00	ug/kg					
Iodomethane	<5.00 ug/kg	5.00	ug/kg					
Isopropylbenzene	<5.00 ug/kg	5.00	ug/kg					
m+p-Xylenes	<5.00 ug/kg	5.00	ug/kg					
Methylene chloride	<5.00 ug/kg	5.00	ug/kg					
Methyl-t-butyl ether (MTBE)	<5.00 ug/kg	5.00	ug/kg					
Naphthalene	<5.00 ug/kg	5.00	ug/kg					
n-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
n-Propylbenzene	<5.00 ug/kg	5.00	ug/kg					
o-Xylene	<5.00 ug/kg	5.00	ug/kg					
sec-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
Styrene	<5.00 ug/kg	5.00	ug/kg					
tert-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
Tetrachloroethylene (PCE)	<5.00 ug/kg	5.00	ug/kg					
Toluene	<5.00 ug/kg	5.00	ug/kg					



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0290 - SW5030B

Blank (BYL0290-BLK1)						Prepared & Analyzed: 12/10/2015		
trans-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg					
trans-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg					
Trichloroethylene	<5.00 ug/kg	5.00	ug/kg					
Trichlorofluoromethane	<5.00 ug/kg	5.00	ug/kg					
Vinyl acetate	<10.0 ug/kg	10.0	ug/kg					
Vinyl chloride	<5.00 ug/kg	5.00	ug/kg					
Xylenes, Total	<15.0 ug/kg	15.0	ug/kg					
<i>Surr: 1,2-Dichloroethane-d4</i>	49.5		ug/kg	49.9		99.2	80-120	
<i>Surr: 4-Bromofluorobenzene</i>	45.2		ug/kg	49.9		90.7	85-120	
<i>Surr: Dibromofluoromethane</i>	49.4		ug/kg	49.9		99.1	80-119	
<i>Surr: Toluene-d8</i>	49.3		ug/kg	49.9		98.8	85-115	

LCS (BYL0290-BS1)						Prepared & Analyzed: 12/10/2015		
1,1,1,2-Tetrachloroethane	47.1 ug/L	5	ug/L	50.0		94.2	75-125	
1,1,1-Trichloroethane	47.2 ug/L	5	ug/L	50.0		94.5	70-135	
1,1,2,2-Tetrachloroethane	42.8 ug/L	5	ug/L	50.0		85.5	55-130	
1,1,2-Trichloroethane	43.9 ug/L	5	ug/L	50.0		87.8	60-125	
1,1-Dichloroethane	50.0 ug/L	5	ug/L	50.0		100	75-125	
1,1-Dichloroethylene	44.4 ug/L	5	ug/L	50.0		88.9	65-135	
1,1-Dichloropropene	47.4 ug/L	5	ug/L	50.0		94.8	70-135	
1,2,3-Trichlorobenzene	48.4 ug/L	5	ug/L	50.0		96.7	60-135	
1,2,3-Trichloropropane	45.8 ug/L	5	ug/L	50.0		91.6	65-130	
1,2,4-Trichlorobenzene	48.6 ug/L	5	ug/L	50.0		97.3	65-130	
1,2,4-Trimethylbenzene	48.3 ug/L	5	ug/L	50.0		96.6	65-135	
1,2-Dibromo-3-chloropropane (DBCP)	44.8 ug/L	5	ug/L	50.0		89.5	40-135	
1,2-Dibromoethane (EDB)	45.4 ug/L	5	ug/L	50.0		90.8	70-125	
1,2-Dichlorobenzene	46.4 ug/L	5	ug/L	50.0		92.8	75-120	
1,2-Dichloroethane	47.5 ug/L	5	ug/L	50.0		95.1	70-135	
1,2-Dichloropropane	45.5 ug/L	5	ug/L	50.0		91.1	70-120	
1,3,5-Trimethylbenzene	47.4 ug/L	5	ug/L	50.0		94.9	65-135	
1,3-Dichlorobenzene	48.0 ug/L	5	ug/L	50.0		96.0	70-125	



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0290 - SW5030B

LCS (BYL0290-BS1)	Prepared & Analyzed: 12/10/2015					
1,3-Dichloropropane	43.2 ug/L	5	ug/L	50.0	86.4	75-125
1,4-Dichlorobenzene	47.3 ug/L	5	ug/L	50.0	94.6	70-125
2,2-Dichloropropane	47.7 ug/L	5	ug/L	50.0	95.3	65-135
2-Butanone (MEK)	49.7 ug/L	5	ug/L	50.0	99.4	30-160
2-Chlorotoluene	48.8 ug/L	5	ug/L	50.0	97.7	70-130
2-Hexanone (MBK)	48.6 ug/L	5	ug/L	50.0	97.2	45-145
4-Chlorotoluene	45.8 ug/L	5	ug/L	50.0	91.5	75-125
4-Isopropyltoluene	47.4 ug/L	5	ug/L	50.0	94.8	75-135
4-Methyl-2-pentanone (MIBK)	48.3 ug/L	5	ug/L	50.0	96.5	45-145
Acetone	53.8 ug/L	10	ug/L	50.0	108	20-160
Benzene	46.7 ug/L	5	ug/L	50.0	93.4	75-125
Bromobenzene	43.8 ug/L	5	ug/L	50.0	87.7	65-120
Bromochloromethane	44.9 ug/L	5	ug/L	50.0	89.8	70-125
Bromodichloromethane	46.5 ug/L	5	ug/L	50.0	93.0	70-130
Bromoform	41.9 ug/L	5	ug/L	50.0	83.9	55-135
Bromomethane	40.0 ug/L	5	ug/L	50.0	80.1	30-160
Carbon disulfide	58.4 ug/L	5	ug/L	50.0	117	45-160
Carbon tetrachloride	46.2 ug/L	5	ug/L	50.0	92.5	65-135
Chlorobenzene	47.3 ug/L	5	ug/L	50.0	94.7	75-125
Chloroethane	50.1 ug/L	5	ug/L	50.0	100	40-155
Chloroform	45.3 ug/L	5	ug/L	50.0	90.7	70-125
Chloromethane	39.7 ug/L	5	ug/L	50.0	79.4	50-130
cis-1,2-Dichloroethylene	46.9 ug/L	5	ug/L	50.0	93.8	65-125
cis-1,3-Dichloropropene	45.0 ug/L	5	ug/L	50.0	90.0	70-125
Dibromochloromethane	46.5 ug/L	5	ug/L	50.0	92.9	65-130
Dibromomethane	44.7 ug/L	5	ug/L	50.0	89.4	75-130
Dichlorodifluoromethane	37.0 ug/L	5	ug/L	50.0	74.1	35-135
Ethylbenzene	46.4 ug/L	5	ug/L	50.0	92.9	75-125
Hexachlorobutadiene	47.7 ug/L	5	ug/L	50.0	95.5	55-140
Isopropylbenzene	47.8 ug/L	5	ug/L	50.0	95.6	75-130
m+p-Xylenes	96.1 ug/L	5	ug/L	100	96.1	80-125



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0290 - SW5030B

LCS (BYL0290-BS1)

	Prepared & Analyzed: 12/10/2015					
Methylene chloride	41.9 ug/L	5	ug/L	50.0	83.8	55-140
Methyl-t-butyl ether (MTBE)	46.6 ug/L	5	ug/L	50.0	93.2	65-125
Naphthalene	50.1 ug/L	5	ug/L	50.0	100	40-125
n-Butylbenzene	46.8 ug/L	5	ug/L	50.0	93.7	65-140
n-Propylbenzene	48.2 ug/L	5	ug/L	50.0	96.4	65-135
o-Xylene	47.8 ug/L	5	ug/L	50.0	95.5	75-125
sec-Butylbenzene	48.2 ug/L	5	ug/L	50.0	96.5	65-130
Styrene	47.6 ug/L	5	ug/L	50.0	95.2	75-125
tert-Butylbenzene	49.1 ug/L	5	ug/L	50.0	98.2	65-130
Tetrachloroethylene (PCE)	64.0 ug/L	5	ug/L	50.0	128	65-140
Toluene	44.2 ug/L	5	ug/L	50.0	88.3	70-125
trans-1,2-Dichloroethylene	45.9 ug/L	5	ug/L	50.0	91.7	65-135
trans-1,3-Dichloropropene	48.1 ug/L	5	ug/L	50.0	96.3	65-125
Trichloroethylene	43.9 ug/L	5	ug/L	50.0	87.8	75-125
Trichlorofluoromethane	40.1 ug/L	5	ug/L	50.0	80.2	25-185
Vinyl chloride	44.6 ug/L	5	ug/L	50.0	89.2	60-125
<i>Surr: 1,2-Dichloroethane-d4</i>	50.5		ug/kg	50.0	101	80-120
<i>Surr: 4-Bromofluorobenzene</i>	49.7		ug/kg	50.0	99.4	85-120
<i>Surr: Dibromofluoromethane</i>	51.4		ug/kg	50.0	103	80-119
<i>Surr: Toluene-d8</i>	49.4		ug/kg	50.0	98.9	85-115

LCS Dup (BYL0290-BSD1)

	Prepared & Analyzed: 12/10/2015					
1,1,1,2-Tetrachloroethane	50.2 ug/L	5	ug/L	50.0	100	75-125
1,1,1-Trichloroethane	50.3 ug/L	5	ug/L	50.0	101	70-135
1,1,2,2-Tetrachloroethane	47.1 ug/L	5	ug/L	50.0	94.3	55-130
1,1,2-Trichloroethane	47.7 ug/L	5	ug/L	50.0	95.4	60-125
1,1-Dichloroethane	51.4 ug/L	5	ug/L	50.0	103	75-125
1,1-Dichloroethylene	49.5 ug/L	5	ug/L	50.0	99.1	65-135
1,1-Dichloropropene	50.3 ug/L	5	ug/L	50.0	101	70-135
1,2,3-Trichlorobenzene	51.2 ug/L	5	ug/L	50.0	102	60-135
1,2,3-Trichloropropane	53.5 ug/L	5	ug/L	50.0	107	65-130



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Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

LCS Dup (BYL0290-BSD1)	Prepared & Analyzed: 12/10/2015								
1,2,4-Trichlorobenzene	50.8 ug/L	5	ug/L	50.0	102	65-130	4.25	30	
1,2,4-Trimethylbenzene	51.6 ug/L	5	ug/L	50.0	103	65-135	6.51	30	
1,2-Dibromo-3-chloropropane (DBCP)	49.9 ug/L	5	ug/L	50.0	99.8	40-135	10.9	30	
1,2-Dibromoethane (EDB)	48.6 ug/L	5	ug/L	50.0	97.2	70-125	6.75	30	
1,2-Dichlorobenzene	48.8 ug/L	5	ug/L	50.0	97.7	75-120	5.14	30	
1,2-Dichloroethane	50.4 ug/L	5	ug/L	50.0	101	70-135	5.86	30	
1,2-Dichloropropane	47.7 ug/L	5	ug/L	50.0	95.5	70-120	4.71	30	
1,3,5-Trimethylbenzene	49.3 ug/L	5	ug/L	50.0	98.7	65-135	3.91	30	
1,3-Dichlorobenzene	51.0 ug/L	5	ug/L	50.0	102	70-125	6.02	30	
1,3-Dichloropropane	46.3 ug/L	5	ug/L	50.0	92.6	75-125	6.96	30	
1,4-Dichlorobenzene	50.2 ug/L	5	ug/L	50.0	100	70-125	5.95	30	
2,2-Dichloropropane	50.9 ug/L	5	ug/L	50.0	102	65-135	6.52	30	
2-Butanone (MEK)	44.9 ug/L	5	ug/L	50.0	89.8	30-160	10.1	30	
2-Chlorotoluene	51.4 ug/L	5	ug/L	50.0	103	70-130	5.08	30	
2-Hexanone (MBK)	51.2 ug/L	5	ug/L	50.0	102	45-145	5.13	30	
4-Chlorotoluene	48.2 ug/L	5	ug/L	50.0	96.4	75-125	5.20	30	
4-Isopropyltoluene	50.3 ug/L	5	ug/L	50.0	101	75-135	5.99	30	
4-Methyl-2-pentanone (MIBK)	48.5 ug/L	5	ug/L	50.0	96.9	45-145	0.443	30	
Acetone	52.3 ug/L	10	ug/L	50.0	105	20-160	2.76	30	
Benzene	50.5 ug/L	5	ug/L	50.0	101	75-125	7.76	30	
Bromobenzene	47.7 ug/L	5	ug/L	50.0	95.3	65-120	8.39	30	
Bromochloromethane	45.9 ug/L	5	ug/L	50.0	91.9	70-125	2.26	30	
Bromodichloromethane	49.7 ug/L	5	ug/L	50.0	99.5	70-130	6.69	30	
Bromoform	45.3 ug/L	5	ug/L	50.0	90.5	55-135	7.63	30	
Bromomethane	45.9 ug/L	5	ug/L	50.0	91.7	30-160	13.6	30	
Carbon disulfide	53.9 ug/L	5	ug/L	50.0	108	45-160	8.17	30	
Carbon tetrachloride	48.3 ug/L	5	ug/L	50.0	96.6	65-135	4.32	30	
Chlorobenzene	50.9 ug/L	5	ug/L	50.0	102	75-125	7.32	30	
Chloroethane	55.0 ug/L	5	ug/L	50.0	110	40-155	9.34	30	
Chloroform	47.1 ug/L	5	ug/L	50.0	94.2	70-125	3.81	30	
Chloromethane	44.4 ug/L	5	ug/L	50.0	88.8	50-130	11.1	30	



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

LCS Dup (BYL0290-BSD1)

Prepared & Analyzed: 12/10/2015

cis-1,2-Dichloroethylene	49.6 ug/L	5	ug/L	50.0	99.2	65-125	5.61	30	
cis-1,3-Dichloropropene	48.4 ug/L	5	ug/L	50.0	96.8	70-125	7.28	30	
Dibromochloromethane	50.9 ug/L	5	ug/L	50.0	102	65-130	9.05	30	
Dibromomethane	49.4 ug/L	5	ug/L	50.0	98.9	75-130	10.1	30	
Dichlorodifluoromethane	39.7 ug/L	5	ug/L	50.0	79.5	35-135	7.01	30	
Ethylbenzene	49.5 ug/L	5	ug/L	50.0	99.0	75-125	6.36	30	
Hexachlorobutadiene	49.7 ug/L	5	ug/L	50.0	99.4	55-140	4.08	30	
Isopropylbenzene	50.8 ug/L	5	ug/L	50.0	102	75-130	6.08	30	
m+p-Xylenes	103 ug/L	5	ug/L	100	103	80-125	7.37	30	
Methylene chloride	44.6 ug/L	5	ug/L	50.0	89.3	55-140	6.28	30	
Methyl-t-butyl ether (MTBE)	48.7 ug/L	5	ug/L	50.0	97.3	65-125	4.30	30	
Naphthalene	54.9 ug/L	5	ug/L	50.0	110	40-125	9.14	30	
n-Butylbenzene	50.0 ug/L	5	ug/L	50.0	100	65-140	6.52	30	
n-Propylbenzene	50.6 ug/L	5	ug/L	50.0	101	65-135	4.80	30	
o-Xylene	50.8 ug/L	5	ug/L	50.0	102	75-125	6.18	30	
sec-Butylbenzene	50.3 ug/L	5	ug/L	50.0	101	65-130	4.18	30	
Styrene	51.7 ug/L	5	ug/L	50.0	103	75-125	8.20	30	
tert-Butylbenzene	50.7 ug/L	5	ug/L	50.0	101	65-130	3.26	30	
Tetrachloroethylene (PCE)	74.8 ug/L	5	ug/L	50.0	150	65-140	15.5	30	L
Toluene	48.5 ug/L	5	ug/L	50.0	96.9	70-125	9.26	30	
trans-1,2-Dichloroethylene	46.4 ug/L	5	ug/L	50.0	92.8	65-135	1.11	30	
trans-1,3-Dichloropropene	50.8 ug/L	5	ug/L	50.0	102	65-125	5.41	30	
Trichloroethylene	48.7 ug/L	5	ug/L	50.0	97.5	75-125	10.4	30	
Trichlorofluoromethane	42.6 ug/L	5	ug/L	50.0	85.2	25-185	6.00	30	
Vinyl chloride	48.4 ug/L	5	ug/L	50.0	96.9	60-125	8.22	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	50.3		ug/kg	49.8	101	80-120			
<i>Surr: 4-Bromofluorobenzene</i>	50.7		ug/kg	49.8	102	85-120			
<i>Surr: Dibromofluoromethane</i>	49.9		ug/kg	49.8	100	80-119			
<i>Surr: Toluene-d8</i>	49.6		ug/kg	49.8	99.6	85-115			



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Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

Duplicate (BYL0290-DUP1)	Source: 15L0217-01			Prepared & Analyzed: 12/10/2015				
1,1,1,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1,1-Trichloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1,2,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1,2-Trichloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1-Dichloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,1-Dichloropropene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2,3-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2,3-Trichloropropane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2,4-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2,4-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2-Dibromoethane (EDB)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2-Dichloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,3,5-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,3-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,3-Dichloropropane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
1,4-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
2,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
2-Butanone (MEK)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
2-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
2-Hexanone (MBK)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
4-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
4-Isopropyltoluene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Acetone	<10.0 ug/kg	10.0	ug/kg	<10.0 ug/kg		NA	30	
Benzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Bromobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Bromochloromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0290 - SW5030B

Duplicate (BYL0290-DUP1)	Source: 15L0217-01			Prepared & Analyzed: 12/10/2015				
Bromodichloromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Bromoform	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Bromomethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Carbon disulfide	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Carbon tetrachloride	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Chlorobenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Chloroethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Chloroform	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Chloromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
cis-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
cis-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Dibromochloromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Dibromomethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Dichlorodifluoromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Ethylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Hexachlorobutadiene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Iodomethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Isopropylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
m+p-Xylenes	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Methylene chloride	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Methyl-t-butyl ether (MTBE)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Naphthalene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
n-Butylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
n-Propylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
o-Xylene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
sec-Butylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Styrene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
tert-Butylbenzene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Tetrachloroethylene (PCE)	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	
Toluene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30	



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0290 - SW5030B

Duplicate (BYL0290-DUP1)	Source: 15L0217-01			Prepared & Analyzed: 12/10/2015			
trans-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30
trans-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30
Trichloroethylene	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30
Trichlorofluoromethane	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30
Vinyl acetate	<10.0 ug/kg	10.0	ug/kg	<10.0 ug/kg		NA	30
Vinyl chloride	<5.00 ug/kg	5.00	ug/kg	<5.00 ug/kg		NA	30
Xylenes, Total	<15.0 ug/kg	15.0	ug/kg	<15.0 ug/kg		NA	30
Surr: 1,2-Dichloroethane-d4	52.2		ug/kg	49.9	105	80-120	
Surr: 4-Bromofluorobenzene	47.7		ug/kg	49.9	95.5	85-120	
Surr: Dibromofluoromethane	50.7		ug/kg	49.9	102	80-119	
Surr: Toluene-d8	49.8		ug/kg	49.9	99.8	85-115	

Matrix Spike (BYL0290-MS1)	Source: 15L0217-02			Prepared & Analyzed: 12/10/2015			
1,1,1,2-Tetrachloroethane	32.0 ug/L	5	ug/L	50.0 <5 ug/L	64.1	75-125	M
1,1,1-Trichloroethane	30.7 ug/L	5	ug/L	50.0 <5 ug/L	61.3	70-135	M
1,1,2,2-Tetrachloroethane	32.4 ug/L	5	ug/L	50.0 <5 ug/L	64.9	55-130	
1,1,2-Trichloroethane	33.6 ug/L	5	ug/L	50.0 <5 ug/L	67.2	60-125	
1,1-Dichloroethane	35.7 ug/L	5	ug/L	50.0 <5 ug/L	71.4	75-125	M
1,1-Dichloroethylene	36.1 ug/L	5	ug/L	50.0 <5 ug/L	72.2	65-135	
1,1-Dichloropropene	32.3 ug/L	5	ug/L	50.0 <5 ug/L	64.7	70-135	M
1,2,3-Trichlorobenzene	17.5 ug/L	5	ug/L	50.0 <5 ug/L	34.9	60-135	M
1,2,3-Trichloropropane	31.4 ug/L	5	ug/L	50.0 <5 ug/L	62.9	65-130	M
1,2,4-Trichlorobenzene	17.2 ug/L	5	ug/L	50.0 <5 ug/L	34.2	65-130	M
1,2,4-Trimethylbenzene	30.4 ug/L	5	ug/L	50.0 <5 ug/L	60.7	65-135	M
1,2-Dibromo-3-chloropropane (DBCP)	24.4 ug/L	5	ug/L	50.0 <5 ug/L	48.7	40-135	
1,2-Dibromoethane (EDB)	30.3 ug/L	5	ug/L	50.0 <5 ug/L	60.6	70-125	M
1,2-Dichlorobenzene	24.9 ug/L	5	ug/L	50.0 <5 ug/L	49.8	75-120	M
1,2-Dichloroethane	26.7 ug/L	5	ug/L	50.0 <5 ug/L	53.4	70-135	M
1,2-Dichloropropane	34.3 ug/L	5	ug/L	50.0 <5 ug/L	68.5	70-120	M
1,3,5-Trimethylbenzene	30.2 ug/L	5	ug/L	50.0 <5 ug/L	60.4	65-135	M
1,3-Dichlorobenzene	25.1 ug/L	5	ug/L	50.0 <5 ug/L	50.0	70-125	M



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

Matrix Spike (BYL0290-MS1)	Source: 15L0217-02		Prepared & Analyzed: 12/10/2015						
1,3-Dichloropropane	29.6 ug/L	5	ug/L	50.0	<5 ug/L	59.2	75-125		M
1,4-Dichlorobenzene	23.3 ug/L	5	ug/L	50.0	<5 ug/L	46.5	70-125		M
2,2-Dichloropropane	29.5 ug/L	5	ug/L	50.0	<5 ug/L	58.9	65-135		M
2-Butanone (MEK)	34.4 ug/L	5	ug/L	50.0	<5 ug/L	68.9	30-160		
2-Chlorotoluene	31.5 ug/L	5	ug/L	50.0	<5 ug/L	63.0	70-130		M
2-Hexanone (MBK)	28.0 ug/L	5	ug/L	50.0	<5 ug/L	56.1	45-145		
4-Chlorotoluene	26.4 ug/L	5	ug/L	50.0	<5 ug/L	52.8	75-125		M
4-Isopropyltoluene	29.0 ug/L	5	ug/L	50.0	<5 ug/L	57.9	75-135		M
4-Methyl-2-pentanone (MIBK)	33.2 ug/L	5	ug/L	50.0	<5 ug/L	66.3	45-145		
Acetone	51.9 ug/L	10	ug/L	50.0	13.5 ug/L	76.9	20-160		
Benzene	35.6 ug/L	5	ug/L	50.0	<5 ug/L	70.6	75-125		M
Bromobenzene	26.3 ug/L	5	ug/L	50.0	<5 ug/L	52.5	65-120		M
Bromochloromethane	31.2 ug/L	5	ug/L	50.0	<5 ug/L	62.5	70-125		M
Bromodichloromethane	28.9 ug/L	5	ug/L	50.0	<5 ug/L	57.8	70-130		M
Bromoform	25.9 ug/L	5	ug/L	50.0	<5 ug/L	51.9	55-135		M
Bromomethane	31.7 ug/L	5	ug/L	50.0	<5 ug/L	63.4	30-160		
Carbon disulfide	39.1 ug/L	5	ug/L	50.0	<5 ug/L	78.1	45-160		
Carbon tetrachloride	29.5 ug/L	5	ug/L	50.0	<5 ug/L	59.0	65-135		M
Chlorobenzene	31.0 ug/L	5	ug/L	50.0	<5 ug/L	62.0	75-125		M
Chloroethane	38.4 ug/L	5	ug/L	50.0	<5 ug/L	76.9	40-155		
Chloroform	30.8 ug/L	5	ug/L	50.0	<5 ug/L	61.6	70-125		M
Chloromethane	29.5 ug/L	5	ug/L	50.0	<5 ug/L	59.0	50-130		
cis-1,2-Dichloroethylene	33.2 ug/L	5	ug/L	50.0	<5 ug/L	66.4	65-125		
cis-1,3-Dichloropropene	27.9 ug/L	5	ug/L	50.0	<5 ug/L	55.7	70-125		M
Dibromochloromethane	30.1 ug/L	5	ug/L	50.0	<5 ug/L	60.2	65-130		M
Dibromomethane	29.4 ug/L	5	ug/L	50.0	<5 ug/L	58.9	75-130		M
Dichlorodifluoromethane	23.5 ug/L	5	ug/L	50.0	<5 ug/L	46.9	35-135		
Ethylbenzene	32.0 ug/L	5	ug/L	50.0	<5 ug/L	64.0	75-125		M
Hexachlorobutadiene	22.3 ug/L	5	ug/L	50.0	<5 ug/L	44.5	55-140		M
Isopropylbenzene	31.3 ug/L	5	ug/L	50.0	<5 ug/L	62.5	75-130		M
m+p-Xylenes	65.1 ug/L	5	ug/L	100	<5 ug/L	65.0	80-125		M



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

Matrix Spike (BYL0290-MS1)	Source: 15L0217-02		Prepared & Analyzed: 12/10/2015						
Methylene chloride	32.8 ug/L	5	ug/L	50.0 <5 ug/L	65.5	55-140			
Methyl-t-butyl ether (MTBE)	34.1 ug/L	5	ug/L	50.0 <5 ug/L	68.2	65-125			
Naphthalene	61.1 ug/L	5	ug/L	50.0 <5 ug/L	121	40-125			
n-Butylbenzene	24.0 ug/L	5	ug/L	50.0 <5 ug/L	47.9	65-140			M
n-Propylbenzene	31.6 ug/L	5	ug/L	50.0 <5 ug/L	63.1	65-135			M
o-Xylene	33.3 ug/L	5	ug/L	50.0 <5 ug/L	66.5	75-125			M
sec-Butylbenzene	30.5 ug/L	5	ug/L	50.0 <5 ug/L	60.8	65-130			M
Styrene	28.7 ug/L	5	ug/L	50.0 <5 ug/L	57.2	75-125			M
tert-Butylbenzene	33.1 ug/L	5	ug/L	50.0 <5 ug/L	66.3	65-130			
Tetrachloroethylene (PCE)	41.1 ug/L	5	ug/L	50.0 <5 ug/L	82.0	65-140			
Toluene	32.6 ug/L	5	ug/L	50.0 <5 ug/L	64.7	70-125			M
trans-1,2-Dichloroethylene	34.1 ug/L	5	ug/L	50.0 <5 ug/L	68.1	65-135			
trans-1,3-Dichloropropene	26.3 ug/L	5	ug/L	50.0 <5 ug/L	52.7	65-125			M
Trichloroethylene	30.2 ug/L	5	ug/L	50.0 <5 ug/L	60.5	75-125			M
Trichlorofluoromethane	25.8 ug/L	5	ug/L	50.0 <5 ug/L	51.7	25-185			
Vinyl chloride	31.5 ug/L	5	ug/L	50.0 <5 ug/L	63.1	60-125			
<i>Surr: 1,2-Dichloroethane-d4</i>	54.4		ug/kg	50.0	109	80-120			
<i>Surr: 4-Bromofluorobenzene</i>	47.4		ug/kg	50.0	94.9	85-120			
<i>Surr: Dibromofluoromethane</i>	48.5		ug/kg	50.0	97.0	80-119			
<i>Surr: Toluene-d8</i>	49.1		ug/kg	50.0	98.1	85-115			

Matrix Spike Dup (BYL0290-MSD1)	Source: 15L0217-02		Prepared & Analyzed: 12/10/2015						
1,1,1,2-Tetrachloroethane	35.7 ug/L	5	ug/L	50.0 <5 ug/L	71.4	75-125	10.8	30	M
1,1,1-Trichloroethane	33.2 ug/L	5	ug/L	50.0 <5 ug/L	66.3	70-135	7.84	30	M
1,1,2,2-Tetrachloroethane	34.2 ug/L	5	ug/L	50.0 <5 ug/L	68.3	55-130	5.14	30	
1,1,2-Trichloroethane	33.6 ug/L	5	ug/L	50.0 <5 ug/L	67.3	60-125	0.0268	30	
1,1-Dichloroethane	38.7 ug/L	5	ug/L	50.0 <5 ug/L	77.5	75-125	8.13	30	
1,1-Dichloroethylene	39.6 ug/L	5	ug/L	50.0 <5 ug/L	79.3	65-135	9.33	30	
1,1-Dichloropropene	34.9 ug/L	5	ug/L	50.0 <5 ug/L	69.7	70-135	7.47	30	M
1,2,3-Trichlorobenzene	23.8 ug/L	5	ug/L	50.0 <5 ug/L	47.4	60-135	30.3	30	M, P
1,2,3-Trichloropropane	32.9 ug/L	5	ug/L	50.0 <5 ug/L	65.8	65-130	4.54	30	



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

Matrix Spike Dup (BYL0290-MSD1)	Source: 15L0217-02			Prepared & Analyzed: 12/10/2015						
1,2,4-Trichlorobenzene	23.1 ug/L	5	ug/L	50.0 <5 ug/L	46.2	65-130	29.7	30	M	
1,2,4-Trimethylbenzene	34.5 ug/L	5	ug/L	50.0 <5 ug/L	68.8	65-135	12.6	30		
1,2-Dibromo-3-chloropropane (DBCP)	27.8 ug/L	5	ug/L	50.0 <5 ug/L	55.5	40-135	13.0	30		
1,2-Dibromoethane (EDB)	33.1 ug/L	5	ug/L	50.0 <5 ug/L	66.2	70-125	8.88	30	M	
1,2-Dichlorobenzene	30.5 ug/L	5	ug/L	50.0 <5 ug/L	61.0	75-120	20.2	30	M	
1,2-Dichloroethane	27.4 ug/L	5	ug/L	50.0 <5 ug/L	54.8	70-135	2.56	30	M	
1,2-Dichloropropane	35.3 ug/L	5	ug/L	50.0 <5 ug/L	70.5	70-120	2.84	30		
1,3,5-Trimethylbenzene	34.5 ug/L	5	ug/L	50.0 <5 ug/L	68.9	65-135	13.1	30		
1,3-Dichlorobenzene	30.5 ug/L	5	ug/L	50.0 <5 ug/L	60.8	70-125	19.3	30	M	
1,3-Dichloropropane	30.9 ug/L	5	ug/L	50.0 <5 ug/L	61.9	75-125	4.43	30	M	
1,4-Dichlorobenzene	29.6 ug/L	5	ug/L	50.0 <5 ug/L	59.2	70-125	23.9	30	M	
2,2-Dichloropropane	31.3 ug/L	5	ug/L	50.0 <5 ug/L	62.6	65-135	5.95	30	M	
2-Butanone (MEK)	35.0 ug/L	5	ug/L	50.0 <5 ug/L	70.1	30-160	1.75	30		
2-Chlorotoluene	36.7 ug/L	5	ug/L	50.0 <5 ug/L	73.5	70-130	15.3	30		
2-Hexanone (MBK)	30.8 ug/L	5	ug/L	50.0 <5 ug/L	61.7	45-145	9.46	30		
4-Chlorotoluene	31.5 ug/L	5	ug/L	50.0 <5 ug/L	63.1	75-125	17.8	30	M	
4-Isopropyltoluene	33.8 ug/L	5	ug/L	50.0 <5 ug/L	67.5	75-135	15.3	30	M	
4-Methyl-2-pentanone (MIBK)	32.1 ug/L	5	ug/L	50.0 <5 ug/L	64.3	45-145	3.09	30		
Acetone	53.7 ug/L	10	ug/L	50.0 13.5 ug/L	80.5	20-160	3.40	30		
Benzene	38.0 ug/L	5	ug/L	50.0 <5 ug/L	75.4	75-125	6.41	30		
Bromobenzene	30.9 ug/L	5	ug/L	50.0 <5 ug/L	61.8	65-120	16.3	30	M	
Bromochloromethane	32.9 ug/L	5	ug/L	50.0 <5 ug/L	65.8	70-125	5.18	30	M	
Bromodichloromethane	31.5 ug/L	5	ug/L	50.0 <5 ug/L	63.0	70-130	8.68	30	M	
Bromoform	29.0 ug/L	5	ug/L	50.0 <5 ug/L	58.0	55-135	11.2	30		
Bromomethane	34.5 ug/L	5	ug/L	50.0 <5 ug/L	68.9	30-160	8.33	30		
Carbon disulfide	46.7 ug/L	5	ug/L	50.0 <5 ug/L	93.3	45-160	17.7	30		
Carbon tetrachloride	31.5 ug/L	5	ug/L	50.0 <5 ug/L	63.1	65-135	6.75	30	M	
Chlorobenzene	35.8 ug/L	5	ug/L	50.0 <5 ug/L	71.5	75-125	14.3	30	M	
Chloroethane	41.5 ug/L	5	ug/L	50.0 <5 ug/L	83.0	40-155	7.65	30		
Chloroform	32.5 ug/L	5	ug/L	50.0 <5 ug/L	65.0	70-125	5.34	30	M	
Chloromethane	31.5 ug/L	5	ug/L	50.0 <5 ug/L	62.9	50-130	6.48	30		



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0290 - SW5030B

Matrix Spike Dup (BYL0290-MSD1)	Source: 15L0217-02			Prepared & Analyzed: 12/10/2015					
cis-1,2-Dichloroethylene	37.2 ug/L	5	ug/L	50.0 <5 ug/L	74.5	65-125	11.5	30	
cis-1,3-Dichloropropene	30.7 ug/L	5	ug/L	50.0 <5 ug/L	61.4	70-125	9.66	30	M
Dibromochloromethane	32.1 ug/L	5	ug/L	50.0 <5 ug/L	64.2	65-130	6.54	30	M
Dibromomethane	32.0 ug/L	5	ug/L	50.0 <5 ug/L	64.0	75-130	8.36	30	M
Dichlorodifluoromethane	24.9 ug/L	5	ug/L	50.0 <5 ug/L	49.7	35-135	5.88	30	
Ethylbenzene	36.0 ug/L	5	ug/L	50.0 <5 ug/L	72.0	75-125	11.8	30	M
Hexachlorobutadiene	26.3 ug/L	5	ug/L	50.0 <5 ug/L	52.6	55-140	16.5	30	M
Isopropylbenzene	36.4 ug/L	5	ug/L	50.0 <5 ug/L	72.7	75-130	15.1	30	M
m+p-Xylenes	74.6 ug/L	5	ug/L	100 <5 ug/L	74.6	80-125	13.6	30	M
Methylene chloride	35.0 ug/L	5	ug/L	50.0 <5 ug/L	69.7	55-140	6.29	30	
Methyl-t-butyl ether (MTBE)	35.0 ug/L	5	ug/L	50.0 <5 ug/L	70.0	65-125	2.49	30	
Naphthalene	48.6 ug/L	5	ug/L	50.0 <5 ug/L	96.5	40-125	22.8	30	
n-Butylbenzene	29.2 ug/L	5	ug/L	50.0 <5 ug/L	58.3	65-140	19.7	30	M
n-Propylbenzene	36.4 ug/L	5	ug/L	50.0 <5 ug/L	72.9	65-135	14.3	30	
o-Xylene	37.4 ug/L	5	ug/L	50.0 <5 ug/L	74.7	75-125	11.6	30	M
sec-Butylbenzene	35.6 ug/L	5	ug/L	50.0 <5 ug/L	71.1	65-130	15.5	30	
Styrene	34.6 ug/L	5	ug/L	50.0 <5 ug/L	69.0	75-125	18.7	30	M
tert-Butylbenzene	37.7 ug/L	5	ug/L	50.0 <5 ug/L	75.4	65-130	12.9	30	
Tetrachloroethylene (PCE)	47.3 ug/L	5	ug/L	50.0 <5 ug/L	94.5	65-140	14.2	30	
Toluene	35.3 ug/L	5	ug/L	50.0 <5 ug/L	70.2	70-125	8.01	30	
trans-1,2-Dichloroethylene	38.5 ug/L	5	ug/L	50.0 <5 ug/L	77.0	65-135	12.2	30	
trans-1,3-Dichloropropene	28.8 ug/L	5	ug/L	50.0 <5 ug/L	57.7	65-125	9.09	30	M
Trichloroethylene	33.0 ug/L	5	ug/L	50.0 <5 ug/L	66.0	75-125	8.72	30	M
Trichlorofluoromethane	28.0 ug/L	5	ug/L	50.0 <5 ug/L	56.0	25-185	7.97	30	
Vinyl chloride	34.5 ug/L	5	ug/L	50.0 <5 ug/L	68.9	60-125	8.88	30	
Surr: 1,2-Dichloroethane-d4	52.3		ug/kg	50.0	105	80-120			
Surr: 4-Bromofluorobenzene	48.6		ug/kg	50.0	97.3	85-120			
Surr: Dibromofluoromethane	49.1		ug/kg	50.0	98.3	80-119			
Surr: Toluene-d8	48.0		ug/kg	50.0	95.9	85-115			



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0298 - SW5030B

Blank (BYL0298-BLK1) Prepared & Analyzed: 12/10/2015

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	<4.00 ug/L	4.00	ug/L
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L
1,2-Dichlorobenzene	<1.00 ug/L	1.00	ug/L
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L
1,2-Dichloropropane	<1.00 ug/L	1.00	ug/L
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L
2,2-Dichloropropane	<2.00 ug/L	2.00	ug/L
2-Butanone (MEK)	<5.00 ug/L	5.00	ug/L
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L
Acetone	<10.0 ug/L	10.0	ug/L
Benzene	<1.00 ug/L	1.00	ug/L
Bromobenzene	<1.00 ug/L	1.00	ug/L
Bromochloromethane	<1.00 ug/L	1.00	ug/L



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0298 - SW5030B

Blank (BYL0298-BLK1) Prepared & Analyzed: 12/10/2015

Bromodichloromethane	<0.50 ug/L	0.50	ug/L
Bromoform	<1.00 ug/L	1.00	ug/L
Bromomethane	<1.00 ug/L	1.00	ug/L
Carbon disulfide	<10.0 ug/L	10.0	ug/L
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L
Chlorobenzene	<1.00 ug/L	1.00	ug/L
Chloroethane	<1.00 ug/L	1.00	ug/L
Chloroform	<0.50 ug/L	0.50	ug/L
Chloromethane	<1.00 ug/L	1.00	ug/L
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L
Dibromochloromethane	<1.00 ug/L	1.00	ug/L
Dibromomethane	<1.00 ug/L	1.00	ug/L
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L
Ethylbenzene	<1.00 ug/L	1.00	ug/L
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L
Iodomethane	<10.0 ug/L	10.0	ug/L
Isopropylbenzene	<1.00 ug/L	1.00	ug/L
m+p-Xylenes	<2.00 ug/L	2.00	ug/L
Methylene chloride	<4.00 ug/L	4.00	ug/L
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L
Naphthalene	<1.00 ug/L	1.00	ug/L
n-Butylbenzene	<1.00 ug/L	1.00	ug/L
n-Propylbenzene	<1.00 ug/L	1.00	ug/L
o-Xylene	<1.00 ug/L	1.00	ug/L
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L
Styrene	<1.00 ug/L	1.00	ug/L
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L
Toluene	<1.00 ug/L	1.00	ug/L



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0298 - SW5030B

Blank (BYL0298-BLK1)		Prepared & Analyzed: 12/10/2015				
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L			
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L			
Trichloroethylene	<1.00 ug/L	1.00	ug/L			
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L			
Vinyl acetate	<10.0 ug/L	10.0	ug/L			
Vinyl chloride	<0.50 ug/L	0.50	ug/L			
Xylenes, Total	<3.00 ug/L	3.00	ug/L			
<i>Surr: 1,2-Dichloroethane-d4</i>	51.8		ug/L	50.0	104	70-120
<i>Surr: 4-Bromofluorobenzene</i>	47.5		ug/L	50.0	95.0	75-120
<i>Surr: Dibromofluoromethane</i>	51.4		ug/L	50.0	103	80-119
<i>Surr: Toluene-d8</i>	50.2		ug/L	50.0	100	85-120

LCS (BYL0298-BS1)		Prepared & Analyzed: 12/10/2015				
1,1,1,2-Tetrachloroethane	56.8 ug/L	0.4	ug/L	50.0	114	80-130
1,1,1-Trichloroethane	52.2 ug/L	1	ug/L	50.0	104	65-130
1,1,2,2-Tetrachloroethane	48.3 ug/L	0.4	ug/L	50.0	96.5	65-130
1,1,2-Trichloroethane	49.1 ug/L	1	ug/L	50.0	98.3	75-125
1,1-Dichloroethane	57.6 ug/L	1	ug/L	50.0	115	70-135
1,1-Dichloroethylene	50.3 ug/L	1	ug/L	50.0	101	70-130
1,1-Dichloropropene	53.0 ug/L	1	ug/L	50.0	106	75-135
1,2,3-Trichlorobenzene	48.0 ug/L	1	ug/L	50.0	96.0	55-140
1,2,3-Trichloropropane	49.1 ug/L	1	ug/L	50.0	98.2	75-125
1,2,4-Trichlorobenzene	49.4 ug/L	1	ug/L	50.0	98.9	65-135
1,2,4-Trimethylbenzene	53.3 ug/L	1	ug/L	50.0	107	75-130
1,2-Dibromo-3-chloropropane (DBCP)	46.3 ug/L	4	ug/L	50.0	92.6	50-130
1,2-Dibromoethane (EDB)	51.3 ug/L	1	ug/L	50.0	103	80-120
1,2-Dichlorobenzene	52.3 ug/L	1	ug/L	50.0	105	70-120
1,2-Dichloroethane	43.7 ug/L	1	ug/L	50.0	87.3	70-130
1,2-Dichloropropane	51.0 ug/L	1	ug/L	50.0	102	75-125
1,3,5-Trimethylbenzene	53.4 ug/L	1	ug/L	50.0	107	75-125
1,3-Dichlorobenzene	54.2 ug/L	1	ug/L	50.0	108	75-125



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0298 - SW5030B

LCS (BYL0298-BS1)	Prepared & Analyzed: 12/10/2015					
1,3-Dichloropropane	47.4 ug/L	1	ug/L	50.0	94.9	75-125
1,4-Dichlorobenzene	52.1 ug/L	1	ug/L	50.0	104	75-125
2,2-Dichloropropane	53.5 ug/L	2	ug/L	50.0	107	70-135
2-Butanone (MEK)	40.9 ug/L	5	ug/L	50.0	81.7	30-150
2-Chlorotoluene	51.9 ug/L	1	ug/L	50.0	104	75-125
2-Hexanone (MBK)	44.0 ug/L	5	ug/L	50.0	88.1	55-130
4-Chlorotoluene	51.7 ug/L	1	ug/L	50.0	103	75-130
4-Isopropyltoluene	54.4 ug/L	1	ug/L	50.0	109	75-130
4-Methyl-2-pentanone (MIBK)	41.2 ug/L	5	ug/L	50.0	82.4	60-135
Acetone	45.2 ug/L	10	ug/L	50.0	90.4	40-140
Benzene	51.9 ug/L	1	ug/L	50.0	104	80-120
Bromobenzene	52.3 ug/L	1	ug/L	50.0	105	75-125
Bromochloromethane	51.0 ug/L	1	ug/L	50.0	102	65-130
Bromodichloromethane	52.6 ug/L	0.5	ug/L	50.0	105	75-120
Bromoform	51.6 ug/L	1	ug/L	50.0	103	70-130
Bromomethane	47.5 ug/L	1	ug/L	50.0	95.1	30-145
Carbon disulfide	50.2 ug/L	10	ug/L	50.0	100	35-160
Carbon tetrachloride	55.6 ug/L	1	ug/L	50.0	111	65-140
Chlorobenzene	53.7 ug/L	1	ug/L	50.0	107	80-120
Chloroethane	52.0 ug/L	1	ug/L	50.0	104	60-135
Chloroform	50.8 ug/L	0.5	ug/L	50.0	102	65-135
Chloromethane	50.0 ug/L	1	ug/L	50.0	100	40-125
cis-1,2-Dichloroethylene	51.8 ug/L	1	ug/L	50.0	104	70-125
cis-1,3-Dichloropropene	52.0 ug/L	1	ug/L	50.0	104	70-130
Dibromochloromethane	53.2 ug/L	1	ug/L	50.0	106	60-135
Dibromomethane	48.4 ug/L	1	ug/L	50.0	96.8	75-125
Dichlorodifluoromethane	42.8 ug/L	1	ug/L	50.0	85.5	30-155
Ethylbenzene	52.3 ug/L	1	ug/L	50.0	105	75-125
Hexachlorobutadiene	49.1 ug/L	0.8	ug/L	50.0	98.3	50-140
Isopropylbenzene	55.9 ug/L	1	ug/L	50.0	112	75-125
m+p-Xylenes	109 ug/L	2	ug/L	100	109	75-130



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0298 - SW5030B

LCS (BYL0298-BS1)

	Prepared & Analyzed: 12/10/2015					
Methylene chloride	44.5 ug/L	4	ug/L	50.0	89.1	55-140
Methyl-t-butyl ether (MTBE)	49.7 ug/L	1	ug/L	50.0	99.3	65-125
Naphthalene	49.8 ug/L	1	ug/L	50.0	99.7	55-140
n-Butylbenzene	53.7 ug/L	1	ug/L	50.0	107	70-135
n-Propylbenzene	53.1 ug/L	1	ug/L	50.0	106	70-130
o-Xylene	55.1 ug/L	1	ug/L	50.0	110	80-120
sec-Butylbenzene	54.6 ug/L	1	ug/L	50.0	109	70-125
Styrene	54.8 ug/L	1	ug/L	50.0	110	65-135
tert-Butylbenzene	56.2 ug/L	1	ug/L	50.0	112	70-130
Tetrachloroethylene (PCE)	66.5 ug/L	1	ug/L	50.0	133	45-150
Toluene	48.8 ug/L	1	ug/L	50.0	97.6	75-120
trans-1,2-Dichloroethylene	52.6 ug/L	1	ug/L	50.0	105	60-140
trans-1,3-Dichloropropene	55.3 ug/L	1	ug/L	50.0	111	55-140
Trichloroethylene	51.5 ug/L	1	ug/L	50.0	103	70-125
Trichlorofluoromethane	44.7 ug/L	1	ug/L	50.0	89.4	60-145
Vinyl chloride	53.4 ug/L	0.5	ug/L	50.0	107	50-145
<i>Surr: 1,2-Dichloroethane-d4</i>	48.2		ug/L	50.0	96.4	70-120
<i>Surr: 4-Bromofluorobenzene</i>	51.7		ug/L	50.0	103	75-120
<i>Surr: Dibromofluoromethane</i>	50.5		ug/L	50.0	101	80-119
<i>Surr: Toluene-d8</i>	48.4		ug/L	50.0	96.9	85-120

LCS Dup (BYL0298-BSD1)

	Prepared & Analyzed: 12/10/2015					
1,1,1,2-Tetrachloroethane	51.8 ug/L	0.4	ug/L	50.0	104	80-130
1,1,1-Trichloroethane	47.5 ug/L	1	ug/L	50.0	95.1	65-130
1,1,2,2-Tetrachloroethane	47.8 ug/L	0.4	ug/L	50.0	95.6	65-130
1,1,2-Trichloroethane	48.1 ug/L	1	ug/L	50.0	96.3	75-125
1,1-Dichloroethane	51.8 ug/L	1	ug/L	50.0	104	70-135
1,1-Dichloroethylene	45.5 ug/L	1	ug/L	50.0	91.0	70-130
1,1-Dichloropropene	49.0 ug/L	1	ug/L	50.0	98.0	75-135
1,2,3-Trichlorobenzene	48.6 ug/L	1	ug/L	50.0	97.2	55-140
1,2,3-Trichloropropane	50.2 ug/L	1	ug/L	50.0	100	75-125



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0298 - SW5030B

LCS Dup (BYL0298-BSD1)	Prepared & Analyzed: 12/10/2015								
1,2,4-Trichlorobenzene	47.6 ug/L	1	ug/L	50.0	95.3	65-135	3.70	30	
1,2,4-Trimethylbenzene	48.4 ug/L	1	ug/L	50.0	96.8	75-130	9.54	30	
1,2-Dibromo-3-chloropropane (DBCP)	50.2 ug/L	4	ug/L	50.0	100	50-130	8.06	30	
1,2-Dibromoethane (EDB)	47.9 ug/L	1	ug/L	50.0	95.8	80-120	6.86	30	
1,2-Dichlorobenzene	49.5 ug/L	1	ug/L	50.0	99.0	70-120	5.60	30	
1,2-Dichloroethane	42.0 ug/L	1	ug/L	50.0	83.9	70-130	3.99	30	
1,2-Dichloropropane	46.9 ug/L	1	ug/L	50.0	93.8	75-125	8.40	30	
1,3,5-Trimethylbenzene	48.4 ug/L	1	ug/L	50.0	96.9	75-125	9.76	30	
1,3-Dichlorobenzene	51.2 ug/L	1	ug/L	50.0	102	75-125	5.71	30	
1,3-Dichloropropane	47.0 ug/L	1	ug/L	50.0	93.9	75-125	1.03	30	
1,4-Dichlorobenzene	49.4 ug/L	1	ug/L	50.0	98.8	75-125	5.38	30	
2,2-Dichloropropane	48.1 ug/L	2	ug/L	50.0	96.2	70-135	10.6	30	
2-Butanone (MEK)	45.6 ug/L	5	ug/L	50.0	91.2	30-150	11.0	30	
2-Chlorotoluene	47.3 ug/L	1	ug/L	50.0	94.7	75-125	9.17	30	
2-Hexanone (MBK)	48.8 ug/L	5	ug/L	50.0	97.5	55-130	10.2	30	
4-Chlorotoluene	47.3 ug/L	1	ug/L	50.0	94.6	75-130	8.88	30	
4-Isopropyltoluene	50.1 ug/L	1	ug/L	50.0	100	75-130	8.30	30	
4-Methyl-2-pentanone (MIBK)	48.6 ug/L	5	ug/L	50.0	97.3	60-135	16.5	30	
Acetone	51.4 ug/L	10	ug/L	50.0	103	40-140	12.8	30	
Benzene	48.3 ug/L	1	ug/L	50.0	96.6	80-120	7.17	30	
Bromobenzene	48.1 ug/L	1	ug/L	50.0	96.3	75-125	8.34	30	
Bromochloromethane	48.1 ug/L	1	ug/L	50.0	96.1	65-130	6.01	30	
Bromodichloromethane	48.8 ug/L	0.5	ug/L	50.0	97.6	75-120	7.53	30	
Bromoform	49.0 ug/L	1	ug/L	50.0	98.0	70-130	5.10	30	
Bromomethane	42.0 ug/L	1	ug/L	50.0	84.1	30-145	12.2	30	
Carbon disulfide	50.1 ug/L	10	ug/L	50.0	100	35-160	0.165	30	
Carbon tetrachloride	50.2 ug/L	1	ug/L	50.0	100	65-140	10.2	30	
Chlorobenzene	49.9 ug/L	1	ug/L	50.0	99.7	80-120	7.39	30	
Chloroethane	46.8 ug/L	1	ug/L	50.0	93.7	60-135	10.4	30	
Chloroform	45.7 ug/L	0.5	ug/L	50.0	91.3	65-135	10.7	30	
Chloromethane	43.6 ug/L	1	ug/L	50.0	87.1	40-125	13.8	30	



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0298 - SW5030B

Prepared & Analyzed: 12/10/2015										
LCS Dup (BYL0298-BSD1)										
cis-1,2-Dichloroethylene	47.2 ug/L	1	ug/L	50.0	94.4	70-125	9.31	30		
cis-1,3-Dichloropropene	49.1 ug/L	1	ug/L	50.0	98.2	70-130	5.73	30		
Dibromochloromethane	52.3 ug/L	1	ug/L	50.0	105	60-135	1.83	30		
Dibromomethane	47.4 ug/L	1	ug/L	50.0	94.8	75-125	2.07	30		
Dichlorodifluoromethane	37.3 ug/L	1	ug/L	50.0	74.6	30-155	13.7	30		
Ethylbenzene	47.8 ug/L	1	ug/L	50.0	95.5	75-125	9.14	30		
Hexachlorobutadiene	47.1 ug/L	0.8	ug/L	50.0	94.1	50-140	4.30	30		
Isopropylbenzene	50.3 ug/L	1	ug/L	50.0	101	75-125	10.5	30		
m+p-Xylenes	98.6 ug/L	2	ug/L	100	98.6	75-130	10.2	30		
Methylene chloride	41.6 ug/L	4	ug/L	50.0	83.1	55-140	6.96	30		
Methyl-t-butyl ether (MTBE)	47.4 ug/L	1	ug/L	50.0	94.9	65-125	4.57	30		
Naphthalene	53.2 ug/L	1	ug/L	50.0	106	55-140	6.60	30		
n-Butylbenzene	49.8 ug/L	1	ug/L	50.0	99.7	70-135	7.46	30		
n-Propylbenzene	47.9 ug/L	1	ug/L	50.0	95.9	70-130	10.3	30		
o-Xylene	48.8 ug/L	1	ug/L	50.0	97.7	80-120	12.0	30		
sec-Butylbenzene	50.3 ug/L	1	ug/L	50.0	101	70-125	8.24	30		
Styrene	50.1 ug/L	1	ug/L	50.0	100	65-135	9.02	30		
tert-Butylbenzene	51.9 ug/L	1	ug/L	50.0	104	70-130	7.89	30		
Tetrachloroethylene (PCE)	60.3 ug/L	1	ug/L	50.0	121	45-150	9.85	30		
Toluene	47.1 ug/L	1	ug/L	50.0	94.1	75-120	3.64	30		
trans-1,2-Dichloroethylene	46.1 ug/L	1	ug/L	50.0	92.2	60-140	13.1	30		
trans-1,3-Dichloropropene	54.8 ug/L	1	ug/L	50.0	110	55-140	0.935	30		
Trichloroethylene	47.2 ug/L	1	ug/L	50.0	94.4	70-125	8.65	30		
Trichlorofluoromethane	38.6 ug/L	1	ug/L	50.0	77.2	60-145	14.7	30		
Vinyl chloride	47.3 ug/L	0.5	ug/L	50.0	94.6	50-145	12.2	30		
<i>Surr: 1,2-Dichloroethane-d4</i>	49.4		ug/L	50.0	98.9	70-120				
<i>Surr: 4-Bromofluorobenzene</i>	50.3		ug/L	50.0	101	75-120				
<i>Surr: Dibromofluoromethane</i>	49.9		ug/L	50.0	99.7	80-119				
<i>Surr: Toluene-d8</i>	49.7		ug/L	50.0	99.4	85-120				



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0298 - SW5030B

Duplicate (BYL0298-DUP1)	Source: 15L0239-05		Prepared & Analyzed: 12/10/2015						
1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L		NA	30		
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L		NA	30		
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2,4-Trimethylbenzene	8.86 ug/L	1.00	ug/L	8.43 ug/L		4.88	30		
1,2-Dibromo-3-chloropropane (DBCP)	<4.00 ug/L	4.00	ug/L	<4.00 ug/L		NA	30		
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,3,5-Trimethylbenzene	2.84 ug/L	1.00	ug/L	2.86 ug/L		0.982	30		
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
2,2-Dichloropropane	<2.00 ug/L	2.00	ug/L	<2.00 ug/L		NA	30		
2-Butanone (MEK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30		
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30		
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	J	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30		
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30		
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]

Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0298 - SW5030B

Duplicate (BYL0298-DUP1)	Source: 15L0239-05			Prepared & Analyzed: 12/10/2015				
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Dibromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30	
Ethylbenzene	1.26 ug/L	1.00	ug/L	1.36 ug/L		7.57	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L	<0.80 ug/L		NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	J
m+p-Xylenes	8.69 ug/L	2.00	ug/L	8.60 ug/L		0.994	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L	<4.00 ug/L		NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Naphthalene	2.68 ug/L	1.00	ug/L	2.67 ug/L		0.224	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	J
o-Xylene	4.86 ug/L	1.00	ug/L	4.96 ug/L		2.12	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	PJ
Styrene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Toluene	1.99 ug/L	1.00	ug/L	2.01 ug/L		1.05	30	



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0298 - SW5030B

Duplicate (BYL0298-DUP1)	Source: 15L0239-05			Prepared & Analyzed: 12/10/2015			
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30
Trichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30
Vinyl acetate	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30
Vinyl chloride	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30
Xylenes, Total	13.6 ug/L	3.00	ug/L	13.6 ug/L		0.133	30
<i>Surr: 1,2-Dichloroethane-d4</i>	53.5		ug/L	50.0	107	70-120	
<i>Surr: 4-Bromofluorobenzene</i>	48.5		ug/L	50.0	96.9	75-120	
<i>Surr: Dibromofluoromethane</i>	51.7		ug/L	50.0	103	80-119	
<i>Surr: Toluene-d8</i>	49.9		ug/L	50.0	99.9	85-120	

Matrix Spike (BYL0298-MS1)	Source: 15L0239-10			Prepared & Analyzed: 12/10/2015			
1,1,1,2-Tetrachloroethane	52.0 ug/L	0.4	ug/L	50.0 <0.4 ug/L	104	80-130	
1,1,1-Trichloroethane	45.2 ug/L	1	ug/L	50.0 <1 ug/L	90.4	65-130	
1,1,2,2-Tetrachloroethane	45.1 ug/L	0.4	ug/L	50.0 <0.4 ug/L	90.2	65-130	
1,1,2-Trichloroethane	48.0 ug/L	1	ug/L	50.0 <1 ug/L	95.9	75-125	
1,1-Dichloroethane	47.9 ug/L	1	ug/L	50.0 <1 ug/L	95.7	70-135	
1,1-Dichloroethylene	42.6 ug/L	1	ug/L	50.0 <1 ug/L	85.3	70-130	
1,1-Dichloropropene	44.3 ug/L	1	ug/L	50.0 <1 ug/L	88.5	75-135	
1,2,3-Trichlorobenzene	48.3 ug/L	1	ug/L	50.0 <1 ug/L	96.6	55-140	
1,2,3-Trichloropropane	46.9 ug/L	1	ug/L	50.0 <1 ug/L	93.9	75-125	
1,2,4-Trichlorobenzene	47.3 ug/L	1	ug/L	50.0 <1 ug/L	94.6	65-135	
1,2,4-Trimethylbenzene	48.7 ug/L	1	ug/L	50.0 <1 ug/L	96.2	75-130	
1,2-Dibromo-3-chloropropane (DBCP)	44.8 ug/L	4	ug/L	50.0 <4 ug/L	89.7	50-130	
1,2-Dibromoethane (EDB)	48.7 ug/L	1	ug/L	50.0 <1 ug/L	97.5	80-120	
1,2-Dichlorobenzene	49.6 ug/L	1	ug/L	50.0 <1 ug/L	99.2	70-120	
1,2-Dichloroethane	40.0 ug/L	1	ug/L	50.0 <1 ug/L	80.0	70-130	
1,2-Dichloropropane	45.1 ug/L	1	ug/L	50.0 <1 ug/L	90.2	75-125	
1,3,5-Trimethylbenzene	47.4 ug/L	1	ug/L	50.0 <1 ug/L	94.4	75-125	
1,3-Dichlorobenzene	49.9 ug/L	1	ug/L	50.0 <1 ug/L	99.8	75-125	



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Final Report

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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0298 - SW5030B

Matrix Spike (BYL0298-MS1)	Source: 15L0239-10		Prepared & Analyzed: 12/10/2015				
1,3-Dichloropropane	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.5	75-125
1,4-Dichlorobenzene	48.3 ug/L	1	ug/L	50.0	<1 ug/L	96.7	75-125
2,2-Dichloropropane	41.4 ug/L	2	ug/L	50.0	<2 ug/L	82.8	70-135
2-Butanone (MEK)	43.9 ug/L	5	ug/L	50.0	<5 ug/L	87.7	30-150
2-Chlorotoluene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.3	75-125
2-Hexanone (MBK)	47.9 ug/L	5	ug/L	50.0	<5 ug/L	95.8	55-130
4-Chlorotoluene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.8	75-130
4-Isopropyltoluene	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.7	75-130
4-Methyl-2-pentanone (MIBK)	47.6 ug/L	5	ug/L	50.0	<5 ug/L	95.3	60-135
Acetone	49.1 ug/L	10	ug/L	50.0	<10 ug/L	98.3	40-140
Benzene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.5	80-120
Bromobenzene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125
Bromochloromethane	48.5 ug/L	1	ug/L	50.0	<1 ug/L	97.1	65-130
Bromodichloromethane	48.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	96.8	75-120
Bromoform	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	70-130
Bromomethane	33.5 ug/L	1	ug/L	50.0	<1 ug/L	67.0	30-145
Carbon disulfide	46.4 ug/L	10	ug/L	50.0	<10 ug/L	92.9	35-160
Carbon tetrachloride	50.0 ug/L	1	ug/L	50.0	<1 ug/L	99.9	65-140
Chlorobenzene	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.0	80-120
Chloroethane	40.8 ug/L	1	ug/L	50.0	<1 ug/L	81.5	60-135
Chloroform	43.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	86.4	65-135
Chloromethane	35.4 ug/L	1	ug/L	50.0	<1 ug/L	70.7	40-125
cis-1,2-Dichloroethylene	45.6 ug/L	1	ug/L	50.0	<1 ug/L	91.3	70-125
cis-1,3-Dichloropropene	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.7	70-130
Dibromochloromethane	52.8 ug/L	1	ug/L	50.0	<1 ug/L	106	60-135
Dibromomethane	47.8 ug/L	1	ug/L	50.0	<1 ug/L	95.6	75-125
Dichlorodifluoromethane	32.9 ug/L	1	ug/L	50.0	<1 ug/L	65.7	30-155
Ethylbenzene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	95.7	75-125
Hexachlorobutadiene	47.7 ug/L	0.8	ug/L	50.0	<0.8 ug/L	95.3	50-140
Isopropylbenzene	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.3	75-125
m+p-Xylenes	99.6 ug/L	2	ug/L	100	<2 ug/L	98.7	75-130



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0298 - SW5030B

Matrix Spike (BYL0298-MS1)	Source: 15L0239-10		Prepared & Analyzed: 12/10/2015				
Methylene chloride	39.6 ug/L	4	ug/L	50.0 <4 ug/L	78.8	55-140	
Methyl-t-butyl ether (MTBE)	46.2 ug/L	1	ug/L	50.0 <1 ug/L	92.4	65-125	
Naphthalene	58.3 ug/L	1	ug/L	50.0 <1 ug/L	116	55-140	
n-Butylbenzene	46.2 ug/L	1	ug/L	50.0 <1 ug/L	92.4	70-135	
n-Propylbenzene	49.2 ug/L	1	ug/L	50.0 <1 ug/L	98.3	70-130	
o-Xylene	51.0 ug/L	1	ug/L	50.0 <1 ug/L	101	80-120	
sec-Butylbenzene	48.6 ug/L	1	ug/L	50.0 <1 ug/L	97.2	70-125	
Styrene	49.5 ug/L	1	ug/L	50.0 <1 ug/L	99.1	65-135	
tert-Butylbenzene	50.7 ug/L	1	ug/L	50.0 <1 ug/L	101	70-130	
Tetrachloroethylene (PCE)	62.4 ug/L	1	ug/L	50.0 <1 ug/L	125	45-150	
Toluene	51.0 ug/L	1	ug/L	50.0 <1 ug/L	100	75-120	
trans-1,2-Dichloroethylene	45.3 ug/L	1	ug/L	50.0 <1 ug/L	90.6	60-140	
trans-1,3-Dichloropropene	50.9 ug/L	1	ug/L	50.0 <1 ug/L	102	55-140	
Trichloroethylene	47.1 ug/L	1	ug/L	50.0 <1 ug/L	94.2	70-125	
Trichlorofluoromethane	36.3 ug/L	1	ug/L	50.0 <1 ug/L	72.6	60-145	
Vinyl chloride	38.0 ug/L	0.5	ug/L	50.0 <0.5 ug/L	76.0	50-145	
Surr: 1,2-Dichloroethane-d4	47.1		ug/L	50.0	94.2	70-120	
Surr: 4-Bromofluorobenzene	48.9		ug/L	50.0	97.7	75-120	
Surr: Dibromofluoromethane	46.9		ug/L	50.0	93.8	80-119	
Surr: Toluene-d8	47.6		ug/L	50.0	95.2	85-120	

Matrix Spike Dup (BYL0298-MSD1)	Source: 15L0239-10		Prepared & Analyzed: 12/10/2015				
1,1,1,2-Tetrachloroethane	55.6 ug/L	0.4	ug/L	50.0 <0.4 ug/L	111	80-130	6.55
1,1,1-Trichloroethane	48.1 ug/L	1	ug/L	50.0 <1 ug/L	96.2	65-130	6.27
1,1,2,2-Tetrachloroethane	47.6 ug/L	0.4	ug/L	50.0 <0.4 ug/L	95.2	65-130	5.35
1,1,2-Trichloroethane	49.9 ug/L	1	ug/L	50.0 <1 ug/L	99.8	75-125	3.94
1,1-Dichloroethane	49.7 ug/L	1	ug/L	50.0 <1 ug/L	99.4	70-135	3.74
1,1-Dichloroethylene	45.4 ug/L	1	ug/L	50.0 <1 ug/L	90.8	70-130	6.31
1,1-Dichloropropene	47.0 ug/L	1	ug/L	50.0 <1 ug/L	93.9	75-135	5.90
1,2,3-Trichlorobenzene	49.4 ug/L	1	ug/L	50.0 <1 ug/L	98.7	55-140	2.20
1,2,3-Trichloropropane	49.0 ug/L	1	ug/L	50.0 <1 ug/L	98.0	75-125	4.34



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0298 - SW5030B

Matrix Spike Dup (BYL0298-MSD1)	Source: 15L0239-10			Prepared & Analyzed: 12/10/2015					
1,2,4-Trichlorobenzene	47.0 ug/L	1	ug/L	50.0	<1 ug/L	93.9	65-135	0.711	30
1,2,4-Trimethylbenzene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	99.8	75-130	3.60	30
1,2-Dibromo-3-chloropropane (DBCP)	54.3 ug/L	4	ug/L	50.0	<4 ug/L	109	50-130	19.1	30
1,2-Dibromoethane (EDB)	51.4 ug/L	1	ug/L	50.0	<1 ug/L	103	80-120	5.23	30
1,2-Dichlorobenzene	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	70-120	2.87	30
1,2-Dichloroethane	40.7 ug/L	1	ug/L	50.0	<1 ug/L	81.4	70-130	1.79	30
1,2-Dichloropropane	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.9	75-125	5.01	30
1,3,5-Trimethylbenzene	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.3	75-125	4.99	30
1,3-Dichlorobenzene	52.1 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125	4.42	30
1,3-Dichloropropane	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.8	75-125	4.51	30
1,4-Dichlorobenzene	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125	3.57	30
2,2-Dichloropropane	44.1 ug/L	2	ug/L	50.0	<2 ug/L	88.2	70-135	6.35	30
2-Butanone (MEK)	44.6 ug/L	5	ug/L	50.0	<5 ug/L	89.3	30-150	1.71	30
2-Chlorotoluene	50.0 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125	4.81	30
2-Hexanone (MBK)	50.1 ug/L	5	ug/L	50.0	<5 ug/L	100	55-130	4.53	30
4-Chlorotoluene	49.5 ug/L	1	ug/L	50.0	<1 ug/L	99.1	75-130	6.52	30
4-Isopropyltoluene	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	75-130	5.57	30
4-Methyl-2-pentanone (MIBK)	49.3 ug/L	5	ug/L	50.0	<5 ug/L	98.7	60-135	3.51	30
Acetone	45.1 ug/L	10	ug/L	50.0	<10 ug/L	90.1	40-140	8.61	30
Benzene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	80-120	6.23	30
Bromobenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125	2.54	30
Bromochloromethane	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.8	65-130	2.76	30
Bromodichloromethane	50.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	102	75-120	5.08	30
Bromoform	55.7 ug/L	1	ug/L	50.0	<1 ug/L	111	70-130	6.84	30
Bromomethane	37.7 ug/L	1	ug/L	50.0	<1 ug/L	75.3	30-145	11.7	30
Carbon disulfide	47.0 ug/L	10	ug/L	50.0	<10 ug/L	94.0	35-160	1.22	30
Carbon tetrachloride	54.1 ug/L	1	ug/L	50.0	<1 ug/L	108	65-140	7.99	30
Chlorobenzene	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	80-120	5.95	30
Chloroethane	43.5 ug/L	1	ug/L	50.0	<1 ug/L	87.1	60-135	6.59	30
Chloroform	45.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	90.8	65-135	4.90	30
Chloromethane	37.9 ug/L	1	ug/L	50.0	<1 ug/L	75.8	40-125	6.88	30



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0298 - SW5030B

Matrix Spike Dup (BYL0298-MSD1)	Source: 15L0239-10			Prepared & Analyzed: 12/10/2015					
cis-1,2-Dichloroethylene	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.2	70-125	5.27	30
cis-1,3-Dichloropropene	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.7	70-130	6.18	30
Dibromochloromethane	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	60-135	7.25	30
Dibromomethane	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125	5.38	30
Dichlorodifluoromethane	36.2 ug/L	1	ug/L	50.0	<1 ug/L	72.3	30-155	9.55	30
Ethylbenzene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125	4.78	30
Hexachlorobutadiene	50.5 ug/L	0.8	ug/L	50.0	<0.8 ug/L	101	50-140	5.71	30
Isopropylbenzene	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125	5.66	30
m+p-Xylenes	103 ug/L	2	ug/L	100	<2 ug/L	102	75-130	3.66	30
Methylene chloride	41.4 ug/L	4	ug/L	50.0	<4 ug/L	82.4	55-140	4.45	30
Methyl-t-butyl ether (MTBE)	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.0	65-125	2.80	30
Naphthalene	58.5 ug/L	1	ug/L	50.0	<1 ug/L	116	55-140	0.370	30
n-Butylbenzene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.2	70-135	3.01	30
n-Propylbenzene	53.6 ug/L	1	ug/L	50.0	<1 ug/L	107	70-130	8.73	30
o-Xylene	52.2 ug/L	1	ug/L	50.0	<1 ug/L	104	80-120	2.32	30
sec-Butylbenzene	52.5 ug/L	1	ug/L	50.0	<1 ug/L	105	70-125	7.80	30
Styrene	51.4 ug/L	1	ug/L	50.0	<1 ug/L	103	65-135	3.69	30
tert-Butylbenzene	55.3 ug/L	1	ug/L	50.0	<1 ug/L	111	70-130	8.73	30
Tetrachloroethylene (PCE)	65.7 ug/L	1	ug/L	50.0	<1 ug/L	131	45-150	5.17	30
Toluene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	102	75-120	1.52	30
trans-1,2-Dichloroethylene	47.2 ug/L	1	ug/L	50.0	<1 ug/L	94.3	60-140	4.00	30
trans-1,3-Dichloropropene	54.1 ug/L	1	ug/L	50.0	<1 ug/L	108	55-140	5.99	30
Trichloroethylene	49.7 ug/L	1	ug/L	50.0	<1 ug/L	99.5	70-125	5.42	30
Trichlorofluoromethane	39.3 ug/L	1	ug/L	50.0	<1 ug/L	78.6	60-145	7.94	30
Vinyl chloride	41.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	83.3	50-145	9.21	30
Surr: 1,2-Dichloroethane-d4	46.8		ug/L	50.0		93.7	70-120		
Surr: 4-Bromofluorobenzene	48.7		ug/L	50.0		97.4	75-120		
Surr: Dibromofluoromethane	46.4		ug/L	50.0		92.8	80-119		
Surr: Toluene-d8	48.6		ug/L	50.0		97.3	85-120		



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Final Report

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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0314 - SW5030B

Blank (BYL0314-BLK1) Prepared & Analyzed: 12/11/2015

1,1,1,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,1-Trichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,2,2-Tetrachloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1,2-Trichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg					
1,1-Dichloropropene	<5.00 ug/kg	5.00	ug/kg					
1,2,3-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2,3-Trichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,2,4-Trichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2,4-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg					
1,2-Dibromo-3-chloropropane (DBCP)	<5.00 ug/kg	5.00	ug/kg					
1,2-Dibromoethane (EDB)	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichloroethane	<5.00 ug/kg	5.00	ug/kg					
1,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,3,5-Trimethylbenzene	<5.00 ug/kg	5.00	ug/kg					
1,3-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
1,3-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
1,4-Dichlorobenzene	<5.00 ug/kg	5.00	ug/kg					
2,2-Dichloropropane	<5.00 ug/kg	5.00	ug/kg					
2-Butanone (MEK)	<5.00 ug/kg	5.00	ug/kg					
2-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg					
2-Hexanone (MBK)	<5.00 ug/kg	5.00	ug/kg					
4-Chlorotoluene	<5.00 ug/kg	5.00	ug/kg					
4-Isopropyltoluene	<5.00 ug/kg	5.00	ug/kg					
4-Methyl-2-pentanone (MIBK)	<5.00 ug/kg	5.00	ug/kg					
Acetone	<10.0 ug/kg	10.0	ug/kg					
Benzene	<5.00 ug/kg	5.00	ug/kg					
Bromobenzene	<5.00 ug/kg	5.00	ug/kg					
Bromochloromethane	<5.00 ug/kg	5.00	ug/kg					



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0314 - SW5030B

Blank (BYL0314-BLK1) Prepared & Analyzed: 12/11/2015

Bromodichloromethane	<5.00 ug/kg	5.00	ug/kg					
Bromoform	<5.00 ug/kg	5.00	ug/kg					
Bromomethane	<5.00 ug/kg	5.00	ug/kg					
Carbon disulfide	<5.00 ug/kg	5.00	ug/kg					
Carbon tetrachloride	<5.00 ug/kg	5.00	ug/kg					
Chlorobenzene	<5.00 ug/kg	5.00	ug/kg					
Chloroethane	<5.00 ug/kg	5.00	ug/kg					
Chloroform	<5.00 ug/kg	5.00	ug/kg					
Chloromethane	<5.00 ug/kg	5.00	ug/kg					
cis-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg					
cis-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg					
Dibromochloromethane	<5.00 ug/kg	5.00	ug/kg					
Dibromomethane	<5.00 ug/kg	5.00	ug/kg					
Dichlorodifluoromethane	<5.00 ug/kg	5.00	ug/kg					
Di-isopropyl ether (DIPE)	<5.00 ug/kg	5.00	ug/kg					
Ethylbenzene	<5.00 ug/kg	5.00	ug/kg					
Hexachlorobutadiene	<5.00 ug/kg	5.00	ug/kg					
Iodomethane	<5.00 ug/kg	5.00	ug/kg					
Isopropylbenzene	<5.00 ug/kg	5.00	ug/kg					
m+p-Xylenes	<5.00 ug/kg	5.00	ug/kg					
Methylene chloride	<5.00 ug/kg	5.00	ug/kg					
Methyl-t-butyl ether (MTBE)	<5.00 ug/kg	5.00	ug/kg					
Naphthalene	<5.00 ug/kg	5.00	ug/kg					
n-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
n-Propylbenzene	<5.00 ug/kg	5.00	ug/kg					
o-Xylene	<5.00 ug/kg	5.00	ug/kg					
sec-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
Styrene	<5.00 ug/kg	5.00	ug/kg					
tert-Butylbenzene	<5.00 ug/kg	5.00	ug/kg					
Tetrachloroethylene (PCE)	<5.00 ug/kg	5.00	ug/kg					
Toluene	<5.00 ug/kg	5.00	ug/kg					



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Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0314 - SW5030B

Blank (BYL0314-BLK1)		Prepared & Analyzed: 12/11/2015				
trans-1,2-Dichloroethylene	<5.00 ug/kg	5.00	ug/kg			
trans-1,3-Dichloropropene	<5.00 ug/kg	5.00	ug/kg			
Trichloroethylene	<5.00 ug/kg	5.00	ug/kg			
Trichlorofluoromethane	<5.00 ug/kg	5.00	ug/kg			
Vinyl acetate	<10.0 ug/kg	10.0	ug/kg			
Vinyl chloride	<5.00 ug/kg	5.00	ug/kg			
Xylenes, Total	<15.0 ug/kg	15.0	ug/kg			
<i>Surr: 1,2-Dichloroethane-d4</i>	50.6		ug/kg	50.0	101	80-120
<i>Surr: 4-Bromofluorobenzene</i>	47.3		ug/kg	50.0	94.6	85-120
<i>Surr: Dibromofluoromethane</i>	49.9		ug/kg	50.0	99.9	80-119
<i>Surr: Toluene-d8</i>	49.4		ug/kg	50.0	98.8	85-115

LCS (BYL0314-BS1)		Prepared & Analyzed: 12/11/2015				
1,1,1,2-Tetrachloroethane	48.8 ug/L	5	ug/L	50.0	97.5	75-125
1,1,1-Trichloroethane	42.2 ug/L	5	ug/L	50.0	84.4	70-135
1,1,2,2-Tetrachloroethane	39.4 ug/L	5	ug/L	50.0	78.8	55-130
1,1,2-Trichloroethane	44.6 ug/L	5	ug/L	50.0	89.2	60-125
1,1-Dichloroethane	42.9 ug/L	5	ug/L	50.0	85.7	75-125
1,1-Dichloroethylene	40.0 ug/L	5	ug/L	50.0	80.0	65-135
1,1-Dichloropropene	42.8 ug/L	5	ug/L	50.0	85.7	70-135
1,2,3-Trichlorobenzene	47.0 ug/L	5	ug/L	50.0	94.1	60-135
1,2,3-Trichloropropane	45.4 ug/L	5	ug/L	50.0	90.8	65-130
1,2,4-Trichlorobenzene	45.7 ug/L	5	ug/L	50.0	91.4	65-130
1,2,4-Trimethylbenzene	43.7 ug/L	5	ug/L	50.0	87.4	65-135
1,2-Dibromo-3-chloropropane (DBCP)	42.4 ug/L	5	ug/L	50.0	84.9	40-135
1,2-Dibromoethane (EDB)	45.5 ug/L	5	ug/L	50.0	91.1	70-125
1,2-Dichlorobenzene	46.6 ug/L	5	ug/L	50.0	93.1	75-120
1,2-Dichloroethane	37.8 ug/L	5	ug/L	50.0	75.7	70-135
1,2-Dichloropropane	42.9 ug/L	5	ug/L	50.0	85.7	70-120
1,3,5-Trimethylbenzene	43.4 ug/L	5	ug/L	50.0	86.7	65-135
1,3-Dichlorobenzene	46.3 ug/L	5	ug/L	50.0	92.5	70-125



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0314 - SW5030B

LCS (BYL0314-BS1)	Prepared & Analyzed: 12/11/2015					
1,3-Dichloropropane	43.7 ug/L	5	ug/L	50.0	87.5	75-125
1,4-Dichlorobenzene	44.9 ug/L	5	ug/L	50.0	89.9	70-125
2,2-Dichloropropane	42.1 ug/L	5	ug/L	50.0	84.2	65-135
2-Butanone (MEK)	44.7 ug/L	5	ug/L	50.0	89.5	30-160
2-Chlorotoluene	43.3 ug/L	5	ug/L	50.0	86.6	70-130
2-Hexanone (MBK)	42.7 ug/L	5	ug/L	50.0	85.4	45-145
4-Chlorotoluene	42.9 ug/L	5	ug/L	50.0	85.9	75-125
4-Isopropyltoluene	44.4 ug/L	5	ug/L	50.0	88.8	75-135
4-Methyl-2-pentanone (MIBK)	43.3 ug/L	5	ug/L	50.0	86.7	45-145
Acetone	43.7 ug/L	10	ug/L	50.0	87.4	20-160
Benzene	44.3 ug/L	5	ug/L	50.0	88.6	75-125
Bromobenzene	46.5 ug/L	5	ug/L	50.0	92.9	65-120
Bromochloromethane	46.0 ug/L	5	ug/L	50.0	92.0	70-125
Bromodichloromethane	45.4 ug/L	5	ug/L	50.0	90.8	70-130
Bromoform	48.3 ug/L	5	ug/L	50.0	96.5	55-135
Bromomethane	35.6 ug/L	5	ug/L	50.0	71.2	30-160
Carbon disulfide	44.2 ug/L	5	ug/L	50.0	88.4	45-160
Carbon tetrachloride	45.6 ug/L	5	ug/L	50.0	91.1	65-135
Chlorobenzene	45.8 ug/L	5	ug/L	50.0	91.6	75-125
Chloroethane	40.7 ug/L	5	ug/L	50.0	81.4	40-155
Chloroform	41.8 ug/L	5	ug/L	50.0	83.6	70-125
Chloromethane	35.7 ug/L	5	ug/L	50.0	71.3	50-130
cis-1,2-Dichloroethylene	42.1 ug/L	5	ug/L	50.0	84.3	65-125
cis-1,3-Dichloropropene	44.6 ug/L	5	ug/L	50.0	89.3	70-125
Dibromochloromethane	49.3 ug/L	5	ug/L	50.0	98.7	65-130
Dibromomethane	44.7 ug/L	5	ug/L	50.0	89.4	75-130
Dichlorodifluoromethane	32.6 ug/L	5	ug/L	50.0	65.2	35-135
Ethylbenzene	43.4 ug/L	5	ug/L	50.0	86.8	75-125
Hexachlorobutadiene	44.9 ug/L	5	ug/L	50.0	89.8	55-140
Isopropylbenzene	46.1 ug/L	5	ug/L	50.0	92.1	75-130
m+p-Xylenes	90.9 ug/L	5	ug/L	100	90.9	80-125



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0314 - SW5030B

LCS (BYL0314-BS1)

	Prepared & Analyzed: 12/11/2015					
Methylene chloride	39.4 ug/L	5	ug/L	50.0	78.8	55-140
Methyl-t-butyl ether (MTBE)	44.4 ug/L	5	ug/L	50.0	88.8	65-125
Naphthalene	49.7 ug/L	5	ug/L	50.0	99.4	40-125
n-Butylbenzene	42.9 ug/L	5	ug/L	50.0	85.8	65-140
n-Propylbenzene	45.7 ug/L	5	ug/L	50.0	91.4	65-135
o-Xylene	45.9 ug/L	5	ug/L	50.0	91.8	75-125
sec-Butylbenzene	45.2 ug/L	5	ug/L	50.0	90.4	65-130
Styrene	46.2 ug/L	5	ug/L	50.0	92.4	75-125
tert-Butylbenzene	46.6 ug/L	5	ug/L	50.0	93.2	65-130
Tetrachloroethylene (PCE)	72.8 ug/L	5	ug/L	50.0	146	65-140
Toluene	42.8 ug/L	5	ug/L	50.0	85.5	70-125
trans-1,2-Dichloroethylene	43.4 ug/L	5	ug/L	50.0	86.8	65-135
trans-1,3-Dichloropropene	47.9 ug/L	5	ug/L	50.0	95.9	65-125
Trichloroethylene	47.8 ug/L	5	ug/L	50.0	95.6	75-125
Trichlorofluoromethane	33.1 ug/L	5	ug/L	50.0	66.2	25-185
Vinyl chloride	36.2 ug/L	5	ug/L	50.0	72.4	60-125
<i>Surr: 1,2-Dichloroethane-d4</i>	48.3		ug/kg	50.0	96.6	80-120
<i>Surr: 4-Bromofluorobenzene</i>	50.1		ug/kg	50.0	100	85-120
<i>Surr: Dibromofluoromethane</i>	48.4		ug/kg	50.0	96.7	80-119
<i>Surr: Toluene-d8</i>	47.8		ug/kg	50.0	95.7	85-115

LCS Dup (BYL0314-BSD1)

	Prepared & Analyzed: 12/11/2015					
1,1,1,2-Tetrachloroethane	47.5 ug/L	5	ug/L	50.0	95.0	75-125
1,1,1-Trichloroethane	41.9 ug/L	5	ug/L	50.0	83.7	70-135
1,1,2,2-Tetrachloroethane	36.6 ug/L	5	ug/L	50.0	73.2	55-130
1,1,2-Trichloroethane	44.4 ug/L	5	ug/L	50.0	88.8	60-125
1,1-Dichloroethane	40.2 ug/L	5	ug/L	50.0	80.3	75-125
1,1-Dichloroethylene	38.2 ug/L	5	ug/L	50.0	76.4	65-135
1,1-Dichloropropene	41.2 ug/L	5	ug/L	50.0	82.3	70-135
1,2,3-Trichlorobenzene	44.5 ug/L	5	ug/L	50.0	88.9	60-135
1,2,3-Trichloropropane	43.4 ug/L	5	ug/L	50.0	86.7	65-130



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0314 - SW5030B

LCS Dup (BYL0314-BSD1)	Prepared & Analyzed: 12/11/2015								
1,2,4-Trichlorobenzene	43.8 ug/L	5	ug/L	50.0	87.6	65-130	4.32	30	
1,2,4-Trimethylbenzene	43.3 ug/L	5	ug/L	50.0	86.6	65-135	0.880	30	
1,2-Dibromo-3-chloropropane (DBCP)	43.5 ug/L	5	ug/L	50.0	87.0	40-135	2.49	30	
1,2-Dibromoethane (EDB)	43.9 ug/L	5	ug/L	50.0	87.8	70-125	3.71	30	
1,2-Dichlorobenzene	46.0 ug/L	5	ug/L	50.0	91.9	75-120	1.31	30	
1,2-Dichloroethane	37.7 ug/L	5	ug/L	50.0	75.4	70-135	0.267	30	
1,2-Dichloropropane	42.1 ug/L	5	ug/L	50.0	84.2	70-120	1.75	30	
1,3,5-Trimethylbenzene	43.2 ug/L	5	ug/L	50.0	86.4	65-135	0.370	30	
1,3-Dichlorobenzene	45.4 ug/L	5	ug/L	50.0	90.7	70-125	1.98	30	
1,3-Dichloropropane	44.2 ug/L	5	ug/L	50.0	88.5	75-125	1.16	30	
1,4-Dichlorobenzene	44.5 ug/L	5	ug/L	50.0	88.9	70-125	1.05	30	
2,2-Dichloropropane	40.8 ug/L	5	ug/L	50.0	81.7	65-135	3.11	30	
2-Butanone (MEK)	41.6 ug/L	5	ug/L	50.0	83.2	30-160	7.23	30	
2-Chlorotoluene	43.5 ug/L	5	ug/L	50.0	87.1	70-130	0.474	30	
2-Hexanone (MBK)	44.4 ug/L	5	ug/L	50.0	88.9	45-145	4.02	30	
4-Chlorotoluene	43.0 ug/L	5	ug/L	50.0	85.9	75-125	0.00932	30	
4-Isopropyltoluene	44.0 ug/L	5	ug/L	50.0	87.9	75-135	0.987	30	
4-Methyl-2-pentanone (MIBK)	44.1 ug/L	5	ug/L	50.0	88.1	45-145	1.66	30	
Acetone	45.1 ug/L	10	ug/L	50.0	90.2	20-160	3.16	30	
Benzene	43.2 ug/L	5	ug/L	50.0	86.3	75-125	2.60	30	
Bromobenzene	44.7 ug/L	5	ug/L	50.0	89.3	65-120	3.93	30	
Bromochloromethane	45.2 ug/L	5	ug/L	50.0	90.3	70-125	1.82	30	
Bromodichloromethane	45.3 ug/L	5	ug/L	50.0	90.6	70-130	0.128	30	
Bromoform	48.5 ug/L	5	ug/L	50.0	96.9	55-135	0.378	30	
Bromomethane	34.2 ug/L	5	ug/L	50.0	68.3	30-160	4.06	30	
Carbon disulfide	44.3 ug/L	5	ug/L	50.0	88.6	45-160	0.147	30	
Carbon tetrachloride	46.1 ug/L	5	ug/L	50.0	92.2	65-135	1.18	30	
Chlorobenzene	44.8 ug/L	5	ug/L	50.0	89.6	75-125	2.26	30	
Chloroethane	39.3 ug/L	5	ug/L	50.0	78.7	40-155	3.34	30	
Chloroform	40.4 ug/L	5	ug/L	50.0	80.7	70-125	3.45	30	
Chloromethane	35.5 ug/L	5	ug/L	50.0	71.0	50-130	0.495	30	



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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0314 - SW5030B

LCS Dup (BYL0314-BSD1)

	Prepared & Analyzed: 12/11/2015							
cis-1,2-Dichloroethylene	39.5 ug/L	5	ug/L	50.0	79.0	65-125	6.44	30
cis-1,3-Dichloropropene	44.4 ug/L	5	ug/L	50.0	88.8	70-125	0.530	30
Dibromochloromethane	50.2 ug/L	5	ug/L	50.0	100	65-130	1.76	30
Dibromomethane	44.7 ug/L	5	ug/L	50.0	89.3	75-130	0.0537	30
Dichlorodifluoromethane	30.6 ug/L	5	ug/L	50.0	61.2	35-135	6.33	30
Ethylbenzene	42.1 ug/L	5	ug/L	50.0	84.2	75-125	2.94	30
Hexachlorobutadiene	42.7 ug/L	5	ug/L	50.0	85.4	55-140	4.97	30
Isopropylbenzene	43.8 ug/L	5	ug/L	50.0	87.5	75-130	5.08	30
m+p-Xylenes	86.2 ug/L	5	ug/L	100	86.2	80-125	5.39	30
Methylene chloride	37.2 ug/L	5	ug/L	50.0	74.3	55-140	5.85	30
Methyl-t-butyl ether (MTBE)	43.7 ug/L	5	ug/L	50.0	87.5	65-125	1.53	30
Naphthalene	50.7 ug/L	5	ug/L	50.0	101	40-125	1.95	30
n-Butylbenzene	42.2 ug/L	5	ug/L	50.0	84.4	65-140	1.58	30
n-Propylbenzene	42.0 ug/L	5	ug/L	50.0	84.0	65-135	8.54	30
o-Xylene	43.3 ug/L	5	ug/L	50.0	86.6	75-125	5.83	30
sec-Butylbenzene	44.3 ug/L	5	ug/L	50.0	88.6	65-130	2.10	30
Styrene	44.6 ug/L	5	ug/L	50.0	89.3	75-125	3.41	30
tert-Butylbenzene	46.9 ug/L	5	ug/L	50.0	93.8	65-130	0.595	30
Tetrachloroethylene (PCE)	68.3 ug/L	5	ug/L	50.0	137	65-140	6.28	30
Toluene	42.7 ug/L	5	ug/L	50.0	85.5	70-125	0.0655	30
trans-1,2-Dichloroethylene	40.9 ug/L	5	ug/L	50.0	81.7	65-135	5.99	30
trans-1,3-Dichloropropene	47.7 ug/L	5	ug/L	50.0	95.3	65-125	0.586	30
Trichloroethylene	47.3 ug/L	5	ug/L	50.0	94.6	75-125	1.09	30
Trichlorofluoromethane	33.1 ug/L	5	ug/L	50.0	66.3	25-185	0.184	30
Vinyl chloride	35.0 ug/L	5	ug/L	50.0	70.0	60-125	3.47	30
Surr: 1,2-Dichloroethane-d4	49.0		ug/kg	50.0	98.0	80-120		
Surr: 4-Bromofluorobenzene	48.4		ug/kg	50.0	96.7	85-120		
Surr: Dibromofluoromethane	47.6		ug/kg	50.0	95.3	80-119		
Surr: Toluene-d8	49.2		ug/kg	50.0	98.3	85-115		



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0314 - SW5030B

Matrix Spike (BYL0314-MS1)	Source: 15L0217-02RE1		Prepared & Analyzed: 12/11/2015						
1,1,1,2-Tetrachloroethane	40.7 ug/L	5	ug/L	50.0 <5 ug/L	81.5	75-125			
1,1,1-Trichloroethane	40.1 ug/L	5	ug/L	50.0 <5 ug/L	80.3	70-135			
1,1,2,2-Tetrachloroethane	18.9 ug/L	5	ug/L	50.0 <5 ug/L	37.8	55-130			M
1,1,2-Trichloroethane	21.0 ug/L	5	ug/L	50.0 <5 ug/L	42.1	60-125			M
1,1-Dichloroethane	37.0 ug/L	5	ug/L	50.0 <5 ug/L	74.1	75-125			M
1,1-Dichloroethylene	42.8 ug/L	5	ug/L	50.0 <5 ug/L	85.5	65-135			
1,1-Dichloropropene	41.0 ug/L	5	ug/L	50.0 <5 ug/L	82.0	70-135			
1,2,3-Trichlorobenzene	23.5 ug/L	5	ug/L	50.0 <5 ug/L	47.1	60-135			M
1,2,3-Trichloropropane	18.0 ug/L	5	ug/L	50.0 <5 ug/L	36.0	65-130			M
1,2,4-Trichlorobenzene	26.7 ug/L	5	ug/L	50.0 <5 ug/L	53.3	65-130			M
1,2,4-Trimethylbenzene	48.1 ug/L	5	ug/L	50.0 <5 ug/L	96.3	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	16.5 ug/L	5	ug/L	50.0 <5 ug/L	33.0	40-135			M
1,2-Dibromoethane (EDB)	21.0 ug/L	5	ug/L	50.0 <5 ug/L	41.9	70-125			M
1,2-Dichlorobenzene	34.7 ug/L	5	ug/L	50.0 <5 ug/L	69.3	75-120			M
1,2-Dichloroethane	18.4 ug/L	5	ug/L	50.0 <5 ug/L	36.7	70-135			M
1,2-Dichloropropane	31.3 ug/L	5	ug/L	50.0 <5 ug/L	62.6	70-120			M
1,3,5-Trimethylbenzene	50.6 ug/L	5	ug/L	50.0 <5 ug/L	101	65-135			
1,3-Dichlorobenzene	40.6 ug/L	5	ug/L	50.0 <5 ug/L	81.1	70-125			
1,3-Dichloropropane	20.3 ug/L	5	ug/L	50.0 <5 ug/L	40.7	75-125			M
1,4-Dichlorobenzene	36.8 ug/L	5	ug/L	50.0 <5 ug/L	73.5	70-125			
2,2-Dichloropropane	39.5 ug/L	5	ug/L	50.0 <5 ug/L	78.9	65-135			
2-Butanone (MEK)	10.8 ug/L	5	ug/L	50.0 <5 ug/L	21.6	30-160			M
2-Chlorotoluene	47.0 ug/L	5	ug/L	50.0 <5 ug/L	93.9	70-130			
2-Hexanone (MBK)	11.9 ug/L	5	ug/L	50.0 <5 ug/L	23.9	45-145			M
4-Chlorotoluene	42.8 ug/L	5	ug/L	50.0 <5 ug/L	85.6	75-125			
4-Isopropyltoluene	52.1 ug/L	5	ug/L	50.0 <5 ug/L	104	75-135			
4-Methyl-2-pentanone (MIBK)	12.8 ug/L	5	ug/L	50.0 <5 ug/L	25.7	45-145			M
Acetone	16.7 ug/L	10	ug/L	50.0 <10 ug/L	22.6	20-160			
Benzene	39.3 ug/L	5	ug/L	50.0 <5 ug/L	78.6	75-125			
Bromobenzene	33.8 ug/L	5	ug/L	50.0 <5 ug/L	67.5	65-120			
Bromochloromethane	24.9 ug/L	5	ug/L	50.0 <5 ug/L	49.8	70-125			M



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Submitted To: John Russell Project Number: [none]
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Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0314 - SW5030B

Matrix Spike (BYL0314-MS1)	Source: 15L0217-02RE1		Prepared & Analyzed: 12/11/2015					
Bromodichloromethane	30.4 ug/L	5	ug/L	50.0 <5 ug/L	60.9	70-130		M
Bromoform	21.8 ug/L	5	ug/L	50.0 <5 ug/L	43.7	55-135		M
Bromomethane	35.2 ug/L	5	ug/L	50.0 <5 ug/L	70.5	30-160		
Carbon disulfide	40.8 ug/L	5	ug/L	50.0 <5 ug/L	81.7	45-160		
Carbon tetrachloride	48.7 ug/L	5	ug/L	50.0 <5 ug/L	97.4	65-135		
Chlorobenzene	39.8 ug/L	5	ug/L	50.0 <5 ug/L	79.5	75-125		
Chloroethane	37.5 ug/L	5	ug/L	50.0 <5 ug/L	74.9	40-155		
Chloroform	31.5 ug/L	5	ug/L	50.0 <5 ug/L	63.0	70-125		M
Chloromethane	43.9 ug/L	5	ug/L	50.0 <5 ug/L	87.9	50-130		
cis-1,2-Dichloroethylene	31.7 ug/L	5	ug/L	50.0 <5 ug/L	63.3	65-125		M
cis-1,3-Dichloropropene	27.6 ug/L	5	ug/L	50.0 <5 ug/L	55.2	70-125		M
Dibromochloromethane	25.4 ug/L	5	ug/L	50.0 <5 ug/L	50.7	65-130		M
Dibromomethane	20.0 ug/L	5	ug/L	50.0 <5 ug/L	40.0	75-130		M
Dichlorodifluoromethane	36.9 ug/L	5	ug/L	50.0 <5 ug/L	73.8	35-135		
Ethylbenzene	46.2 ug/L	5	ug/L	50.0 <5 ug/L	92.5	75-125		
Hexachlorobutadiene	38.8 ug/L	5	ug/L	50.0 <5 ug/L	77.6	55-140		
Isopropylbenzene	49.9 ug/L	5	ug/L	50.0 <5 ug/L	99.9	75-130		
m+p-Xylenes	92.9 ug/L	5	ug/L	100 <5 ug/L	92.9	80-125		
Methylene chloride	25.0 ug/L	5	ug/L	50.0 <5 ug/L	48.0	55-140		M
Methyl-t-butyl ether (MTBE)	19.5 ug/L	5	ug/L	50.0 <5 ug/L	39.0	65-125		M
Naphthalene	19.5 ug/L	5	ug/L	50.0 <5 ug/L	38.9	40-125		M
n-Butylbenzene	47.3 ug/L	5	ug/L	50.0 <5 ug/L	94.7	65-140		
n-Propylbenzene	54.0 ug/L	5	ug/L	50.0 <5 ug/L	108	65-135		
o-Xylene	44.3 ug/L	5	ug/L	50.0 <5 ug/L	88.6	75-125		
sec-Butylbenzene	54.1 ug/L	5	ug/L	50.0 <5 ug/L	108	65-130		
Styrene	37.5 ug/L	5	ug/L	50.0 <5 ug/L	74.9	75-125		M
tert-Butylbenzene	58.5 ug/L	5	ug/L	50.0 <5 ug/L	117	65-130		
Tetrachloroethylene (PCE)	62.4 ug/L	5	ug/L	50.0 <5 ug/L	125	65-140		
Toluene	37.7 ug/L	5	ug/L	50.0 <5 ug/L	75.5	70-125		
trans-1,2-Dichloroethylene	37.3 ug/L	5	ug/L	50.0 <5 ug/L	74.6	65-135		
trans-1,3-Dichloropropene	23.7 ug/L	5	ug/L	50.0 <5 ug/L	47.4	65-125		M



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0314 - SW5030B

Matrix Spike (BYL0314-MS1)	Source: 15L0217-02RE1		Prepared & Analyzed: 12/11/2015						
Trichloroethylene	41.7 ug/L	5	ug/L	50.0 <5 ug/L	83.5	75-125			
Trichlorofluoromethane	40.2 ug/L	5	ug/L	50.0 <5 ug/L	80.4	25-185			
Vinyl chloride	34.6 ug/L	5	ug/L	50.0 <5 ug/L	69.2	60-125			
<i>Surr: 1,2-Dichloroethane-d4</i>	29.4		ug/kg	49.5	59.5	80-120			S
<i>Surr: 4-Bromofluorobenzene</i>	45.9		ug/kg	49.5	92.8	85-120			
<i>Surr: Dibromofluoromethane</i>	36.5		ug/kg	49.5	73.7	80-119			S
<i>Surr: Toluene-d8</i>	45.6		ug/kg	49.5	92.2	85-115			

Matrix Spike Dup (BYL0314-MSD1)	Source: 15L0217-02RE1		Prepared & Analyzed: 12/11/2015						
1,1,1,2-Tetrachloroethane	41.7 ug/L	5	ug/L	50.0 <5 ug/L	83.4	75-125	2.34	30	
1,1,1-Trichloroethane	38.6 ug/L	5	ug/L	50.0 <5 ug/L	77.2	70-135	3.93	30	
1,1,2,2-Tetrachloroethane	37.8 ug/L	5	ug/L	50.0 <5 ug/L	75.6	55-130	66.7	30	P
1,1,2-Trichloroethane	38.1 ug/L	5	ug/L	50.0 <5 ug/L	76.2	60-125	57.7	30	P
1,1-Dichloroethane	35.9 ug/L	5	ug/L	50.0 <5 ug/L	71.8	75-125	3.13	30	M
1,1-Dichloroethylene	35.0 ug/L	5	ug/L	50.0 <5 ug/L	70.1	65-135	19.9	30	
1,1-Dichloropropene	36.1 ug/L	5	ug/L	50.0 <5 ug/L	72.2	70-135	12.7	30	
1,2,3-Trichlorobenzene	24.7 ug/L	5	ug/L	50.0 <5 ug/L	49.5	60-135	4.91	30	M
1,2,3-Trichloropropane	37.7 ug/L	5	ug/L	50.0 <5 ug/L	75.4	65-130	70.8	30	P
1,2,4-Trichlorobenzene	24.6 ug/L	5	ug/L	50.0 <5 ug/L	49.1	65-130	8.21	30	M
1,2,4-Trimethylbenzene	33.1 ug/L	5	ug/L	50.0 <5 ug/L	66.3	65-135	36.9	30	P
1,2-Dibromo-3-chloropropane (DBCP)	36.0 ug/L	5	ug/L	50.0 <5 ug/L	71.9	40-135	74.2	30	P
1,2-Dibromoethane (EDB)	37.9 ug/L	5	ug/L	50.0 <5 ug/L	75.8	70-125	57.6	30	P
1,2-Dichlorobenzene	31.9 ug/L	5	ug/L	50.0 <5 ug/L	63.8	75-120	8.22	30	M
1,2-Dichloroethane	33.1 ug/L	5	ug/L	50.0 <5 ug/L	66.1	70-135	57.2	30	M, P
1,2-Dichloropropene	36.6 ug/L	5	ug/L	50.0 <5 ug/L	73.2	70-120	15.7	30	
1,3,5-Trimethylbenzene	33.5 ug/L	5	ug/L	50.0 <5 ug/L	66.9	65-135	40.9	30	P
1,3-Dichlorobenzene	31.6 ug/L	5	ug/L	50.0 <5 ug/L	63.2	70-125	24.8	30	M
1,3-Dichloropropane	36.8 ug/L	5	ug/L	50.0 <5 ug/L	73.6	75-125	57.6	30	M, P
1,4-Dichlorobenzene	30.7 ug/L	5	ug/L	50.0 <5 ug/L	61.4	70-125	18.0	30	M
2,2-Dichloropropane	37.8 ug/L	5	ug/L	50.0 <5 ug/L	75.6	65-135	4.30	30	
2-Butanone (MEK)	35.2 ug/L	5	ug/L	50.0 <5 ug/L	70.4	30-160	106	30	P



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0314 - SW5030B

Matrix Spike Dup (BYL0314-MSD1)	Source: 15L0217-02RE1			Prepared & Analyzed: 12/11/2015						
2-Chlorotoluene	33.0 ug/L	5	ug/L	50.0 <5 ug/L	66.0	70-130	34.9	30	M, P	
2-Hexanone (MBK)	32.0 ug/L	5	ug/L	50.0 <5 ug/L	64.0	45-145	91.3	30	P	
4-Chlorotoluene	30.9 ug/L	5	ug/L	50.0 <5 ug/L	61.9	75-125	32.1	30	M, P	
4-Isopropyltoluene	32.8 ug/L	5	ug/L	50.0 <5 ug/L	65.6	75-135	45.4	30	M, P	
4-Methyl-2-pentanone (MIBK)	34.9 ug/L	5	ug/L	50.0 <5 ug/L	69.8	45-145	92.5	30	P	
Acetone	48.0 ug/L	10	ug/L	50.0 <10 ug/L	85.1	20-160	96.7	30	P	
Benzene	37.6 ug/L	5	ug/L	50.0 <5 ug/L	75.3	75-125	4.27	30		
Bromobenzene	34.9 ug/L	5	ug/L	50.0 <5 ug/L	69.7	65-120	3.17	30		
Bromochloromethane	39.3 ug/L	5	ug/L	50.0 <5 ug/L	78.5	70-125	44.8	30	P	
Bromodichloromethane	39.4 ug/L	5	ug/L	50.0 <5 ug/L	78.8	70-130	25.6	30		
Bromoform	41.3 ug/L	5	ug/L	50.0 <5 ug/L	82.6	55-135	61.7	30	P	
Bromomethane	32.2 ug/L	5	ug/L	50.0 <5 ug/L	64.3	30-160	9.10	30		
Carbon disulfide	34.2 ug/L	5	ug/L	50.0 <5 ug/L	68.4	45-160	17.7	30		
Carbon tetrachloride	41.4 ug/L	5	ug/L	50.0 <5 ug/L	82.9	65-135	16.2	30		
Chlorobenzene	36.2 ug/L	5	ug/L	50.0 <5 ug/L	72.4	75-125	9.38	30	M	
Chloroethane	36.2 ug/L	5	ug/L	50.0 <5 ug/L	72.3	40-155	3.56	30		
Chloroform	36.1 ug/L	5	ug/L	50.0 <5 ug/L	72.1	70-125	13.5	30		
Chloromethane	32.2 ug/L	5	ug/L	50.0 <5 ug/L	64.5	50-130	30.8	30	P	
cis-1,2-Dichloroethylene	34.3 ug/L	5	ug/L	50.0 <5 ug/L	68.5	65-125	7.93	30		
cis-1,3-Dichloropropene	37.1 ug/L	5	ug/L	50.0 <5 ug/L	74.3	70-125	29.4	30		
Dibromochloromethane	42.9 ug/L	5	ug/L	50.0 <5 ug/L	85.7	65-130	51.4	30	P	
Dibromomethane	37.7 ug/L	5	ug/L	50.0 <5 ug/L	75.3	75-130	61.2	30	P	
Dichlorodifluoromethane	29.0 ug/L	5	ug/L	50.0 <5 ug/L	58.1	35-135	23.9	30		
Ethylbenzene	35.4 ug/L	5	ug/L	50.0 <5 ug/L	70.7	75-125	26.7	30	M	
Hexachlorobutadiene	25.2 ug/L	5	ug/L	50.0 <5 ug/L	50.3	55-140	42.6	30	M, P	
Isopropylbenzene	36.6 ug/L	5	ug/L	50.0 <5 ug/L	73.1	75-130	30.9	30	M, P	
m+p-Xylenes	72.3 ug/L	5	ug/L	100 <5 ug/L	72.3	80-125	24.9	30	M	
Methylene chloride	34.1 ug/L	5	ug/L	50.0 <5 ug/L	66.2	55-140	30.6	30	P	
Methyl-t-butyl ether (MTBE)	39.2 ug/L	5	ug/L	50.0 <5 ug/L	78.5	65-125	67.3	30	P	
Naphthalene	31.9 ug/L	5	ug/L	50.0 <5 ug/L	63.7	40-125	48.3	30	P	
n-Butylbenzene	28.1 ug/L	5	ug/L	50.0 <5 ug/L	56.2	65-140	50.9	30	M, P	



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0314 - SW5030B

Matrix Spike Dup (BYL0314-MSD1)	Source: 15L0217-02RE1			Prepared & Analyzed: 12/11/2015						
n-Propylbenzene	32.5 ug/L	5	ug/L	50.0	<5 ug/L	64.9	65-135	49.8	30	M, P
o-Xylene	37.4 ug/L	5	ug/L	50.0	<5 ug/L	74.8	75-125	16.9	30	M
sec-Butylbenzene	33.1 ug/L	5	ug/L	50.0	<5 ug/L	66.3	65-130	48.1	30	P
Styrene	35.0 ug/L	5	ug/L	50.0	<5 ug/L	69.9	75-125	6.86	30	M
tert-Butylbenzene	36.5 ug/L	5	ug/L	50.0	<5 ug/L	73.0	65-130	46.4	30	P
Tetrachloroethylene (PCE)	46.1 ug/L	5	ug/L	50.0	<5 ug/L	92.2	65-140	30.1	30	P
Toluene	36.4 ug/L	5	ug/L	50.0	<5 ug/L	72.9	70-125	3.54	30	
trans-1,2-Dichloroethylene	35.6 ug/L	5	ug/L	50.0	<5 ug/L	71.2	65-135	4.66	30	
trans-1,3-Dichloropropene	39.5 ug/L	5	ug/L	50.0	<5 ug/L	78.9	65-125	50.0	30	P
Trichloroethylene	35.7 ug/L	5	ug/L	50.0	<5 ug/L	71.3	75-125	15.7	30	M
Trichlorofluoromethane	30.7 ug/L	5	ug/L	50.0	<5 ug/L	61.3	25-185	26.9	30	
Vinyl chloride	33.5 ug/L	5	ug/L	50.0	<5 ug/L	67.0	60-125	3.22	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	50.4		ug/kg	49.9		101	80-120			
<i>Surr: 4-Bromofluorobenzene</i>	49.2		ug/kg	49.9		98.7	85-120			
<i>Surr: Dibromofluoromethane</i>	49.6		ug/kg	49.9		99.3	80-119			
<i>Surr: Toluene-d8</i>	48.7		ug/kg	49.9		97.7	85-115			

Batch BYL0325 - SW5030B

Blank (BYL0325-BLK1)	Prepared & Analyzed: 12/11/2015						
1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L				
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L				
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L				
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L				
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L				
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L				
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L				
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L				
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L				
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L				
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L				



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Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0325 - SW5030B

Blank (BYL0325-BLK1) Prepared & Analyzed: 12/11/2015

1,2-Dibromo-3-chloropropane (DBCP)	<4.00 ug/L	4.00	ug/L						
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L						
1,2-Dichlorobenzene	<1.00 ug/L	1.00	ug/L						
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L						
1,2-Dichloropropane	<1.00 ug/L	1.00	ug/L						
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L						
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L						
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L						
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L						
2,2-Dichloropropane	<2.00 ug/L	2.00	ug/L						
2-Butanone (MEK)	<5.00 ug/L	5.00	ug/L						
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L						
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L						
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L						
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L						
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L						
Acetone	<10.0 ug/L	10.0	ug/L						
Benzene	<1.00 ug/L	1.00	ug/L						
Bromobenzene	<1.00 ug/L	1.00	ug/L						
Bromochloromethane	<1.00 ug/L	1.00	ug/L						
Bromodichloromethane	<0.50 ug/L	0.50	ug/L						
Bromoform	<1.00 ug/L	1.00	ug/L						
Bromomethane	<1.00 ug/L	1.00	ug/L						
Carbon disulfide	<10.0 ug/L	10.0	ug/L						
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L						
Chlorobenzene	<1.00 ug/L	1.00	ug/L						
Chloroethane	<1.00 ug/L	1.00	ug/L						
Chloroform	<0.50 ug/L	0.50	ug/L						
Chloromethane	<1.00 ug/L	1.00	ug/L						
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L						
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L						



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Final Report

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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	RPD Qual
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Batch BYL0325 - SW5030B

Blank (BYL0325-BLK1)	Prepared & Analyzed: 12/11/2015					
Dibromochloromethane	<1.00 ug/L	1.00	ug/L			
Dibromomethane	<1.00 ug/L	1.00	ug/L			
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L			
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L			
Ethylbenzene	<1.00 ug/L	1.00	ug/L			
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L			
Iodomethane	<10.0 ug/L	10.0	ug/L			
Isopropylbenzene	<1.00 ug/L	1.00	ug/L			
m+p-Xylenes	<2.00 ug/L	2.00	ug/L			
Methylene chloride	<4.00 ug/L	4.00	ug/L			
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L			
Naphthalene	<1.00 ug/L	1.00	ug/L			
n-Butylbenzene	<1.00 ug/L	1.00	ug/L			
n-Propylbenzene	<1.00 ug/L	1.00	ug/L			
o-Xylene	<1.00 ug/L	1.00	ug/L			
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L			
Styrene	<1.00 ug/L	1.00	ug/L			
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L			
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L			
Toluene	<1.00 ug/L	1.00	ug/L			
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L			
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L			
Trichloroethylene	<1.00 ug/L	1.00	ug/L			
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L			
Vinyl acetate	<10.0 ug/L	10.0	ug/L			
Vinyl chloride	<0.50 ug/L	0.50	ug/L			
Xylenes, Total	<3.00 ug/L	3.00	ug/L			
Surr: 1,2-Dichloroethane-d4	52.4	ug/L	50.0	105	70-120	
Surr: 4-Bromofluorobenzene	47.0	ug/L	50.0	94.0	75-120	
Surr: Dibromofluoromethane	49.8	ug/L	50.0	99.6	80-119	
Surr: Toluene-d8	49.3	ug/L	50.0	98.7	85-120	



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Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0325 - SW5030B

LCS (BYL0325-BS1)	Prepared & Analyzed: 12/11/2015					
1,1,1,2-Tetrachloroethane	46.2 ug/L	0.4	ug/L	50.0	92.5	80-130
1,1,1-Trichloroethane	43.8 ug/L	1	ug/L	50.0	87.5	65-130
1,1,2,2-Tetrachloroethane	45.2 ug/L	0.4	ug/L	50.0	90.5	65-130
1,1,2-Trichloroethane	44.8 ug/L	1	ug/L	50.0	89.6	75-125
1,1-Dichloroethane	48.1 ug/L	1	ug/L	50.0	96.3	70-135
1,1-Dichloroethylene	45.7 ug/L	1	ug/L	50.0	91.4	70-130
1,1-Dichloropropene	46.4 ug/L	1	ug/L	50.0	92.7	75-135
1,2,3-Trichlorobenzene	48.0 ug/L	1	ug/L	50.0	96.0	55-140
1,2,3-Trichloropropane	46.5 ug/L	1	ug/L	50.0	93.0	75-125
1,2,4-Trichlorobenzene	48.8 ug/L	1	ug/L	50.0	97.5	65-135
1,2,4-Trimethylbenzene	48.4 ug/L	1	ug/L	50.0	96.8	75-130
1,2-Dibromo-3-chloropropane (DBCP)	42.3 ug/L	4	ug/L	50.0	84.6	50-130
1,2-Dibromoethane (EDB)	45.6 ug/L	1	ug/L	50.0	91.2	80-120
1,2-Dichlorobenzene	47.8 ug/L	1	ug/L	50.0	95.7	70-120
1,2-Dichloroethane	43.7 ug/L	1	ug/L	50.0	87.3	70-130
1,2-Dichloropropane	45.0 ug/L	1	ug/L	50.0	89.9	75-125
1,3,5-Trimethylbenzene	46.9 ug/L	1	ug/L	50.0	93.7	75-125
1,3-Dichlorobenzene	48.8 ug/L	1	ug/L	50.0	97.5	75-125
1,3-Dichloropropane	43.0 ug/L	1	ug/L	50.0	85.9	75-125
1,4-Dichlorobenzene	48.6 ug/L	1	ug/L	50.0	97.1	75-125
2,2-Dichloropropane	45.6 ug/L	2	ug/L	50.0	91.3	70-135
2-Butanone (MEK)	46.5 ug/L	5	ug/L	50.0	93.0	30-150
2-Chlorotoluene	50.0 ug/L	1	ug/L	50.0	100	75-125
2-Hexanone (MBK)	46.2 ug/L	5	ug/L	50.0	92.5	55-130
4-Chlorotoluene	45.8 ug/L	1	ug/L	50.0	91.6	75-130
4-Isopropyltoluene	47.4 ug/L	1	ug/L	50.0	94.8	75-130
4-Methyl-2-pentanone (MIBK)	45.3 ug/L	5	ug/L	50.0	90.6	60-135
Acetone	50.1 ug/L	10	ug/L	50.0	100	40-140
Benzene	46.8 ug/L	1	ug/L	50.0	93.7	80-120
Bromobenzene	45.4 ug/L	1	ug/L	50.0	90.8	75-125
Bromochloromethane	45.2 ug/L	1	ug/L	50.0	90.4	65-130



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0325 - SW5030B

LCS (BYL0325-BS1)	Prepared & Analyzed: 12/11/2015						
Bromodichloromethane	45.2 ug/L	0.5	ug/L	50.0	90.4	75-120	
Bromoform	41.2 ug/L	1	ug/L	50.0	82.3	70-130	
Bromomethane	42.8 ug/L	1	ug/L	50.0	85.5	30-145	
Carbon disulfide	51.5 ug/L	10	ug/L	50.0	103	35-160	
Carbon tetrachloride	43.4 ug/L	1	ug/L	50.0	86.8	65-140	
Chlorobenzene	48.5 ug/L	1	ug/L	50.0	97.1	80-120	
Chloroethane	50.9 ug/L	1	ug/L	50.0	102	60-135	
Chloroform	43.5 ug/L	0.5	ug/L	50.0	86.9	65-135	
Chloromethane	39.8 ug/L	1	ug/L	50.0	79.6	40-125	
cis-1,2-Dichloroethylene	45.6 ug/L	1	ug/L	50.0	91.2	70-125	
cis-1,3-Dichloropropene	45.4 ug/L	1	ug/L	50.0	90.8	70-130	
Dibromochloromethane	45.2 ug/L	1	ug/L	50.0	90.4	60-135	
Dibromomethane	44.7 ug/L	1	ug/L	50.0	89.4	75-125	
Dichlorodifluoromethane	33.0 ug/L	1	ug/L	50.0	66.0	30-155	
Ethylbenzene	47.9 ug/L	1	ug/L	50.0	95.8	75-125	
Hexachlorobutadiene	47.3 ug/L	0.8	ug/L	50.0	94.6	50-140	
Isopropylbenzene	48.6 ug/L	1	ug/L	50.0	97.2	75-125	
m+p-Xylenes	98.6 ug/L	2	ug/L	100	98.6	75-130	
Methylene chloride	44.2 ug/L	4	ug/L	50.0	88.4	55-140	
Methyl-t-butyl ether (MTBE)	44.9 ug/L	1	ug/L	50.0	89.8	65-125	
Naphthalene	51.8 ug/L	1	ug/L	50.0	104	55-140	
n-Butylbenzene	46.6 ug/L	1	ug/L	50.0	93.3	70-135	
n-Propylbenzene	49.8 ug/L	1	ug/L	50.0	99.7	70-130	
o-Xylene	49.3 ug/L	1	ug/L	50.0	98.6	80-120	
sec-Butylbenzene	48.7 ug/L	1	ug/L	50.0	97.4	70-125	
Styrene	49.7 ug/L	1	ug/L	50.0	99.5	65-135	
tert-Butylbenzene	48.7 ug/L	1	ug/L	50.0	97.4	70-130	
Tetrachloroethylene (PCE)	59.5 ug/L	1	ug/L	50.0	119	45-150	
Toluene	45.6 ug/L	1	ug/L	50.0	91.2	75-120	
trans-1,2-Dichloroethylene	45.4 ug/L	1	ug/L	50.0	90.7	60-140	
trans-1,3-Dichloropropene	47.1 ug/L	1	ug/L	50.0	94.3	55-140	



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

LCS (BYL0325-BS1)

	Prepared & Analyzed: 12/11/2015					
Trichloroethylene	43.3 ug/L	1	ug/L	50.0	86.5	70-125
Trichlorofluoromethane	37.6 ug/L	1	ug/L	50.0	75.2	60-145
Vinyl chloride	42.2 ug/L	0.5	ug/L	50.0	84.4	50-145
<i>Surr: 1,2-Dichloroethane-d4</i>	49.0		ug/L	50.0	98.0	70-120
<i>Surr: 4-Bromofluorobenzene</i>	49.6		ug/L	50.0	99.3	75-120
<i>Surr: Dibromofluoromethane</i>	49.2		ug/L	50.0	98.4	80-119
<i>Surr: Toluene-d8</i>	48.9		ug/L	50.0	97.8	85-120

LCS Dup (BYL0325-BS1)

	Prepared & Analyzed: 12/11/2015					
1,1,1,2-Tetrachloroethane	46.0 ug/L	0.4	ug/L	50.0	92.0	80-130 0.527 30
1,1,1-Trichloroethane	43.3 ug/L	1	ug/L	50.0	86.7	65-130 0.978 30
1,1,2,2-Tetrachloroethane	44.0 ug/L	0.4	ug/L	50.0	88.0	65-130 2.74 30
1,1,2-Trichloroethane	45.2 ug/L	1	ug/L	50.0	90.5	75-125 0.899 30
1,1-Dichloroethane	47.8 ug/L	1	ug/L	50.0	95.6	70-135 0.688 30
1,1-Dichloroethylene	44.7 ug/L	1	ug/L	50.0	89.4	70-130 2.30 30
1,1-Dichloropropene	45.1 ug/L	1	ug/L	50.0	90.2	75-135 2.72 30
1,2,3-Trichlorobenzene	49.2 ug/L	1	ug/L	50.0	98.4	55-140 2.47 30
1,2,3-Trichloropropane	46.6 ug/L	1	ug/L	50.0	93.3	75-125 0.320 30
1,2,4-Trichlorobenzene	48.0 ug/L	1	ug/L	50.0	95.9	65-135 1.63 30
1,2,4-Trimethylbenzene	48.4 ug/L	1	ug/L	50.0	96.7	75-130 0.0909 30
1,2-Dibromo-3-chloropropane (DBCP)	41.5 ug/L	4	ug/L	50.0	83.0	50-130 1.85 30
1,2-Dibromoethane (EDB)	45.0 ug/L	1	ug/L	50.0	90.1	80-120 1.27 30
1,2-Dichlorobenzene	47.7 ug/L	1	ug/L	50.0	95.4	70-120 0.289 30
1,2-Dichloroethane	43.5 ug/L	1	ug/L	50.0	87.1	70-130 0.266 30
1,2-Dichloropropene	45.3 ug/L	1	ug/L	50.0	90.7	75-125 0.855 30
1,3,5-Trimethylbenzene	46.9 ug/L	1	ug/L	50.0	93.7	75-125 0.00426 30
1,3-Dichlorobenzene	49.3 ug/L	1	ug/L	50.0	98.6	75-125 1.03 30
1,3-Dichloropropane	42.9 ug/L	1	ug/L	50.0	85.9	75-125 0.0652 30
1,4-Dichlorobenzene	48.1 ug/L	1	ug/L	50.0	96.2	75-125 0.900 30
2,2-Dichloropropene	44.3 ug/L	2	ug/L	50.0	88.7	70-135 2.92 30
2-Butanone (MEK)	44.2 ug/L	5	ug/L	50.0	88.3	30-150 5.21 30



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

LCS Dup (BYL0325-BSD1)	Prepared & Analyzed: 12/11/2015							
2-Chlorotoluene	50.4 ug/L	1	ug/L	50.0	101	75-125	0.709	30
2-Hexanone (MBK)	43.8 ug/L	5	ug/L	50.0	87.6	55-130	5.39	30
4-Chlorotoluene	47.3 ug/L	1	ug/L	50.0	94.7	75-130	3.26	30
4-Isopropyltoluene	47.7 ug/L	1	ug/L	50.0	95.4	75-130	0.623	30
4-Methyl-2-pentanone (MIBK)	42.8 ug/L	5	ug/L	50.0	85.5	60-135	5.71	30
Acetone	43.4 ug/L	10	ug/L	50.0	86.9	40-140	14.2	30
Benzene	47.2 ug/L	1	ug/L	50.0	94.5	80-120	0.836	30
Bromobenzene	44.9 ug/L	1	ug/L	50.0	89.9	75-125	1.02	30
Bromochloromethane	44.2 ug/L	1	ug/L	50.0	88.5	65-130	2.22	30
Bromodichloromethane	45.1 ug/L	0.5	ug/L	50.0	90.3	75-120	0.144	30
Bromoform	41.4 ug/L	1	ug/L	50.0	82.8	70-130	0.644	30
Bromomethane	43.4 ug/L	1	ug/L	50.0	86.9	30-145	1.60	30
Carbon disulfide	51.6 ug/L	10	ug/L	50.0	103	35-160	0.0989	30
Carbon tetrachloride	44.0 ug/L	1	ug/L	50.0	87.9	65-140	1.30	30
Chlorobenzene	47.9 ug/L	1	ug/L	50.0	95.7	80-120	1.41	30
Chloroethane	49.3 ug/L	1	ug/L	50.0	98.7	60-135	3.06	30
Chloroform	42.6 ug/L	0.5	ug/L	50.0	85.2	65-135	2.01	30
Chloromethane	39.1 ug/L	1	ug/L	50.0	78.2	40-125	1.73	30
cis-1,2-Dichloroethylene	46.3 ug/L	1	ug/L	50.0	92.6	70-125	1.44	30
cis-1,3-Dichloropropene	44.7 ug/L	1	ug/L	50.0	89.5	70-130	1.44	30
Dibromochloromethane	45.7 ug/L	1	ug/L	50.0	91.3	60-135	0.966	30
Dibromomethane	44.9 ug/L	1	ug/L	50.0	89.8	75-125	0.424	30
Dichlorodifluoromethane	32.9 ug/L	1	ug/L	50.0	65.7	30-155	0.483	30
Ethylbenzene	46.6 ug/L	1	ug/L	50.0	93.3	75-125	2.66	30
Hexachlorobutadiene	47.8 ug/L	0.8	ug/L	50.0	95.5	50-140	0.957	30
Isopropylbenzene	47.5 ug/L	1	ug/L	50.0	94.9	75-125	2.37	30
m+p-Xylenes	97.0 ug/L	2	ug/L	100	97.0	75-130	1.58	30
Methylene chloride	42.9 ug/L	4	ug/L	50.0	85.8	55-140	2.99	30
Methyl-t-butyl ether (MTBE)	44.9 ug/L	1	ug/L	50.0	89.8	65-125	0.0245	30
Naphthalene	51.6 ug/L	1	ug/L	50.0	103	55-140	0.501	30
n-Butylbenzene	46.3 ug/L	1	ug/L	50.0	92.6	70-135	0.743	30



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

<u>LCS Dup (BYL0325-BSD1)</u>		Prepared & Analyzed: 12/11/2015						
n-Propylbenzene	48.2 ug/L	1	ug/L	50.0	96.4	70-130	3.39	30
o-Xylene	48.4 ug/L	1	ug/L	50.0	96.8	80-120	1.83	30
sec-Butylbenzene	48.8 ug/L	1	ug/L	50.0	97.7	70-125	0.248	30
Styrene	49.0 ug/L	1	ug/L	50.0	97.9	65-135	1.58	30
tert-Butylbenzene	49.2 ug/L	1	ug/L	50.0	98.4	70-130	1.01	30
Tetrachloroethylene (PCE)	59.7 ug/L	1	ug/L	50.0	119	45-150	0.373	30
Toluene	45.5 ug/L	1	ug/L	50.0	91.0	75-120	0.250	30
trans-1,2-Dichloroethylene	44.5 ug/L	1	ug/L	50.0	88.9	60-140	1.99	30
trans-1,3-Dichloropropene	46.7 ug/L	1	ug/L	50.0	93.5	55-140	0.848	30
Trichloroethylene	43.2 ug/L	1	ug/L	50.0	86.5	70-125	0.0555	30
Trichlorofluoromethane	36.1 ug/L	1	ug/L	50.0	72.3	60-145	3.89	30
Vinyl chloride	41.7 ug/L	0.5	ug/L	50.0	83.4	50-145	1.20	30
<i>Surr: 1,2-Dichloroethane-d4</i>	48.8		ug/L	50.0	97.6	70-120		
<i>Surr: 4-Bromofluorobenzene</i>	49.7		ug/L	50.0	99.3	75-120		
<i>Surr: Dibromofluoromethane</i>	49.2		ug/L	50.0	98.4	80-119		
<i>Surr: Toluene-d8</i>	49.3		ug/L	50.0	98.5	85-120		

<u>Duplicate (BYL0325-DUP1)</u>		Source: 15L0239-27 Prepared & Analyzed: 12/11/2015						
1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L		NA		30
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L		NA		30
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30
1,2-Dibromo-3-chloropropane (DBCP)	<4.00 ug/L	4.00	ug/L	<4.00 ug/L		NA		30
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA		30



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Final Report

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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0325 - SW5030B

Duplicate (BYL0325-DUP1)	Source: 15L0239-27			Prepared & Analyzed: 12/11/2015				
1,2-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,3-Dichloroproppane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
2,2-Dichloropropane	<2.00 ug/L	2.00	ug/L	<2.00 ug/L		NA	30	
2-Butanone (MEK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Dibromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30	



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Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

Duplicate (BYL0325-DUP1)	Source: 15L0239-27			Prepared & Analyzed: 12/11/2015					
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L		NA	30		
Ethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L	<0.80 ug/L		NA	30		
Iodomethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30		
Isopropylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
m+p-Xylenes	<2.00 ug/L	2.00	ug/L	<2.00 ug/L		NA	30		
Methylene chloride	<4.00 ug/L	4.00	ug/L	<4.00 ug/L		NA	30		
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Naphthalene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
n-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
n-Propylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
o-Xylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Styrene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Toluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Trichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L		NA	30		
Vinyl acetate	<10.0 ug/L	10.0	ug/L	<10.0 ug/L		NA	30		
Vinyl chloride	<0.50 ug/L	0.50	ug/L	<0.50 ug/L		NA	30		
Xylenes, Total	<3.00 ug/L	3.00	ug/L	<3.00 ug/L		NA	30		
Surr: 1,2-Dichloroethane-d4	52.8		ug/L	50.0	106	70-120			
Surr: 4-Bromofluorobenzene	48.4		ug/L	50.0	96.8	75-120			
Surr: Dibromofluoromethane	48.9		ug/L	50.0	97.7	80-119			
Surr: Toluene-d8	49.5		ug/L	50.0	99.0	85-120			



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

Matrix Spike (BYL0325-MS1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015					
1,1,1,2-Tetrachloroethane	46.9 ug/L	0.4	ug/L	50.0	<0.4 ug/L	93.8	80-130		
1,1,1-Trichloroethane	45.6 ug/L	1	ug/L	50.0	<1 ug/L	91.3	65-130		
1,1,2,2-Tetrachloroethane	45.1 ug/L	0.4	ug/L	50.0	<0.4 ug/L	90.2	65-130		
1,1,2-Trichloroethane	44.0 ug/L	1	ug/L	50.0	<1 ug/L	88.0	75-125		
1,1-Dichloroethane	47.8 ug/L	1	ug/L	50.0	<1 ug/L	95.6	70-135		
1,1-Dichloroethylene	45.5 ug/L	1	ug/L	50.0	<1 ug/L	91.1	70-130		
1,1-Dichloropropene	44.1 ug/L	1	ug/L	50.0	<1 ug/L	88.2	75-135		
1,2,3-Trichlorobenzene	44.5 ug/L	1	ug/L	50.0	<1 ug/L	88.9	55-140		
1,2,3-Trichloropropane	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.1	75-125		
1,2,4-Trichlorobenzene	41.8 ug/L	1	ug/L	50.0	<1 ug/L	83.6	65-135		
1,2,4-Trimethylbenzene	45.0 ug/L	1	ug/L	50.0	<1 ug/L	89.9	75-130		
1,2-Dibromo-3-chloropropane (DBCP)	45.8 ug/L	4	ug/L	50.0	<4 ug/L	91.6	50-130		
1,2-Dibromoethane (EDB)	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.6	80-120		
1,2-Dichlorobenzene	45.6 ug/L	1	ug/L	50.0	<1 ug/L	91.2	70-120		
1,2-Dichloroethane	45.4 ug/L	1	ug/L	50.0	<1 ug/L	90.7	70-130		
1,2-Dichloropropane	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.8	75-125		
1,3,5-Trimethylbenzene	44.3 ug/L	1	ug/L	50.0	<1 ug/L	88.4	75-125		
1,3-Dichlorobenzene	45.0 ug/L	1	ug/L	50.0	<1 ug/L	89.8	75-125		
1,3-Dichloropropane	42.8 ug/L	1	ug/L	50.0	<1 ug/L	85.6	75-125		
1,4-Dichlorobenzene	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.6	75-125		
2,2-Dichloropropane	41.9 ug/L	2	ug/L	50.0	<2 ug/L	83.8	70-135		
2-Butanone (MEK)	50.2 ug/L	5	ug/L	50.0	<5 ug/L	100	30-150		
2-Chlorotoluene	46.7 ug/L	1	ug/L	50.0	<1 ug/L	93.3	75-125		
2-Hexanone (MBK)	48.9 ug/L	5	ug/L	50.0	<5 ug/L	97.8	55-130		
4-Chlorotoluene	43.2 ug/L	1	ug/L	50.0	<1 ug/L	86.5	75-130		
4-Isopropyltoluene	45.3 ug/L	1	ug/L	50.0	<1 ug/L	90.6	75-130		
4-Methyl-2-pentanone (MIBK)	46.6 ug/L	5	ug/L	50.0	<5 ug/L	93.2	60-135		
Acetone	52.9 ug/L	10	ug/L	50.0	<10 ug/L	101	40-140		
Benzene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.0	80-120		
Bromobenzene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.4	75-125		
Bromochloromethane	44.4 ug/L	1	ug/L	50.0	<1 ug/L	88.9	65-130		



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0325 - SW5030B

Matrix Spike (BYL0325-MS1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015					
Bromodichloromethane	45.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	91.5	75-120		
Bromoform	43.0 ug/L	1	ug/L	50.0	<1 ug/L	86.1	70-130		
Bromomethane	43.3 ug/L	1	ug/L	50.0	<1 ug/L	86.5	30-145		
Carbon disulfide	51.2 ug/L	10	ug/L	50.0	<10 ug/L	102	35-160		
Carbon tetrachloride	45.0 ug/L	1	ug/L	50.0	<1 ug/L	90.1	65-140		
Chlorobenzene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.8	80-120		
Chloroethane	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	60-135		
Chloroform	43.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.6	65-135		
Chloromethane	40.0 ug/L	1	ug/L	50.0	<1 ug/L	79.8	40-125		
cis-1,2-Dichloroethylene	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.7	70-125		
cis-1,3-Dichloropropene	43.0 ug/L	1	ug/L	50.0	<1 ug/L	86.1	70-130		
Dibromochloromethane	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.9	60-135		
Dibromomethane	45.4 ug/L	1	ug/L	50.0	<1 ug/L	90.9	75-125		
Dichlorodifluoromethane	34.4 ug/L	1	ug/L	50.0	<1 ug/L	68.6	30-155		
Ethylbenzene	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.6	75-125		
Hexachlorobutadiene	46.7 ug/L	0.8	ug/L	50.0	<0.8 ug/L	93.3	50-140		
Isopropylbenzene	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.5	75-125		
m+p-Xylenes	94.9 ug/L	2	ug/L	100	<2 ug/L	94.9	75-130		
Methylene chloride	41.0 ug/L	4	ug/L	50.0	<4 ug/L	81.9	55-140		
Methyl-t-butyl ether (MTBE)	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.6	65-125		
Naphthalene	78.3 ug/L	1	ug/L	50.0	2.00 ug/L	153	55-140	M	
n-Butylbenzene	42.1 ug/L	1	ug/L	50.0	<1 ug/L	84.2	70-135		
n-Propylbenzene	46.5 ug/L	1	ug/L	50.0	<1 ug/L	93.0	70-130		
o-Xylene	47.8 ug/L	1	ug/L	50.0	<1 ug/L	95.3	80-120		
sec-Butylbenzene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.3	70-125		
Styrene	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.5	65-135		
tert-Butylbenzene	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.1	70-130		
Tetrachloroethylene (PCE)	58.6 ug/L	1	ug/L	50.0	<1 ug/L	117	45-150		
Toluene	44.4 ug/L	1	ug/L	50.0	<1 ug/L	88.6	75-120		
trans-1,2-Dichloroethylene	42.9 ug/L	1	ug/L	50.0	<1 ug/L	85.9	60-140		
trans-1,3-Dichloropropene	45.3 ug/L	1	ug/L	50.0	<1 ug/L	90.6	55-140		



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0325 - SW5030B

Matrix Spike (BYL0325-MS1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015				
Trichloroethylene	42.5 ug/L	1	ug/L	50.0 <1 ug/L	85.0	70-125		
Trichlorofluoromethane	38.5 ug/L	1	ug/L	50.0 <1 ug/L	76.9	60-145		
Vinyl chloride	43.5 ug/L	0.5	ug/L	50.0 <0.5 ug/L	87.0	50-145		
<i>Surr: 1,2-Dichloroethane-d4</i>	47.6		ug/L	50.0	95.2	70-120		
<i>Surr: 4-Bromofluorobenzene</i>	50.0		ug/L	50.0	100	75-120		
<i>Surr: Dibromofluoromethane</i>	48.7		ug/L	50.0	97.5	80-119		
<i>Surr: Toluene-d8</i>	49.2		ug/L	50.0	98.4	85-120		

Matrix Spike Dup (BYL0325-MSD1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015				
1,1,1,2-Tetrachloroethane	46.8 ug/L	0.4	ug/L	50.0 <0.4 ug/L	93.5	80-130	0.269	30
1,1,1-Trichloroethane	44.6 ug/L	1	ug/L	50.0 <1 ug/L	89.2	65-130	2.29	30
1,1,2,2-Tetrachloroethane	43.4 ug/L	0.4	ug/L	50.0 <0.4 ug/L	86.7	65-130	3.91	30
1,1,2-Trichloroethane	43.8 ug/L	1	ug/L	50.0 <1 ug/L	87.7	75-125	0.398	30
1,1-Dichloroethane	46.2 ug/L	1	ug/L	50.0 <1 ug/L	92.3	70-135	3.50	30
1,1-Dichloroethylene	44.0 ug/L	1	ug/L	50.0 <1 ug/L	88.0	70-130	3.46	30
1,1-Dichloropropene	44.0 ug/L	1	ug/L	50.0 <1 ug/L	88.0	75-135	0.129	30
1,2,3-Trichlorobenzene	44.6 ug/L	1	ug/L	50.0 <1 ug/L	89.2	55-140	0.323	30
1,2,3-Trichloropropane	45.4 ug/L	1	ug/L	50.0 <1 ug/L	90.8	75-125	7.67	30
1,2,4-Trichlorobenzene	42.3 ug/L	1	ug/L	50.0 <1 ug/L	84.5	65-135	1.10	30
1,2,4-Trimethylbenzene	46.4 ug/L	1	ug/L	50.0 <1 ug/L	92.7	75-130	3.10	30
1,2-Dibromo-3-chloropropane (DBCP)	44.0 ug/L	4	ug/L	50.0 <4 ug/L	87.9	50-130	4.13	30
1,2-Dibromoethane (EDB)	44.9 ug/L	1	ug/L	50.0 <1 ug/L	89.8	80-120	4.05	30
1,2-Dichlorobenzene	44.9 ug/L	1	ug/L	50.0 <1 ug/L	89.6	70-120	1.72	30
1,2-Dichloroethane	45.3 ug/L	1	ug/L	50.0 <1 ug/L	90.5	70-130	0.254	30
1,2-Dichloropropane	44.5 ug/L	1	ug/L	50.0 <1 ug/L	88.9	75-125	1.28	30
1,3,5-Trimethylbenzene	44.8 ug/L	1	ug/L	50.0 <1 ug/L	89.4	75-125	1.15	30
1,3-Dichlorobenzene	46.2 ug/L	1	ug/L	50.0 <1 ug/L	92.3	75-125	2.70	30
1,3-Dichloropropane	43.5 ug/L	1	ug/L	50.0 <1 ug/L	87.1	75-125	1.69	30
1,4-Dichlorobenzene	43.5 ug/L	1	ug/L	50.0 <1 ug/L	86.9	75-125	0.771	30
2,2-Dichloropropane	41.0 ug/L	2	ug/L	50.0 <2 ug/L	82.1	70-135	2.02	30
2-Butanone (MEK)	44.0 ug/L	5	ug/L	50.0 <5 ug/L	88.0	30-150	13.2	30



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

Matrix Spike Dup (BYL0325-MSD1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015					
2-Chlorotoluene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	96.0	75-125	2.84	30
2-Hexanone (MBK)	47.5 ug/L	5	ug/L	50.0	<5 ug/L	95.0	55-130	2.88	30
4-Chlorotoluene	43.8 ug/L	1	ug/L	50.0	<1 ug/L	87.6	75-130	1.22	30
4-Isopropyltoluene	44.7 ug/L	1	ug/L	50.0	<1 ug/L	89.4	75-130	1.32	30
4-Methyl-2-pentanone (MIBK)	44.3 ug/L	5	ug/L	50.0	<5 ug/L	88.5	60-135	5.15	30
Acetone	47.1 ug/L	10	ug/L	50.0	<10 ug/L	89.4	40-140	11.6	30
Benzene	45.9 ug/L	1	ug/L	50.0	<1 ug/L	90.9	80-120	1.17	30
Bromobenzene	44.6 ug/L	1	ug/L	50.0	<1 ug/L	89.2	75-125	3.52	30
Bromochloromethane	42.5 ug/L	1	ug/L	50.0	<1 ug/L	85.0	65-130	4.48	30
Bromodichloromethane	45.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	91.3	75-120	0.210	30
Bromoform	42.1 ug/L	1	ug/L	50.0	<1 ug/L	84.3	70-130	2.15	30
Bromomethane	44.1 ug/L	1	ug/L	50.0	<1 ug/L	88.2	30-145	1.90	30
Carbon disulfide	49.1 ug/L	10	ug/L	50.0	<10 ug/L	98.2	35-160	4.27	30
Carbon tetrachloride	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.2	65-140	0.140	30
Chlorobenzene	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.5	80-120	2.43	30
Chloroethane	48.5 ug/L	1	ug/L	50.0	<1 ug/L	97.0	60-135	3.24	30
Chloroform	42.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	84.6	65-135	3.50	30
Chloromethane	42.2 ug/L	1	ug/L	50.0	<1 ug/L	84.3	40-125	5.46	30
cis-1,2-Dichloroethylene	44.9 ug/L	1	ug/L	50.0	<1 ug/L	89.9	70-125	2.42	30
cis-1,3-Dichloropropene	42.3 ug/L	1	ug/L	50.0	<1 ug/L	84.5	70-130	1.83	30
Dibromochloromethane	45.9 ug/L	1	ug/L	50.0	<1 ug/L	91.7	60-135	1.26	30
Dibromomethane	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.2	75-125	0.806	30
Dichlorodifluoromethane	35.4 ug/L	1	ug/L	50.0	<1 ug/L	70.7	30-155	2.92	30
Ethylbenzene	45.0 ug/L	1	ug/L	50.0	<1 ug/L	90.0	75-125	2.79	30
Hexachlorobutadiene	45.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	90.7	50-140	2.86	30
Isopropylbenzene	45.8 ug/L	1	ug/L	50.0	<1 ug/L	91.5	75-125	2.08	30
m+p-Xylenes	92.6 ug/L	2	ug/L	100	<2 ug/L	92.6	75-130	2.42	30
Methylene chloride	41.4 ug/L	4	ug/L	50.0	<4 ug/L	82.7	55-140	0.974	30
Methyl-t-butyl ether (MTBE)	44.7 ug/L	1	ug/L	50.0	<1 ug/L	89.2	65-125	1.84	30
Naphthalene	59.4 ug/L	1	ug/L	50.0	2.00 ug/L	115	55-140	27.5	30
n-Butylbenzene	42.9 ug/L	1	ug/L	50.0	<1 ug/L	85.8	70-135	1.92	30



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Final Report

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1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Volatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0325 - SW5030B

Matrix Spike Dup (BYL0325-MSD1)	Source: 15L0239-21			Prepared & Analyzed: 12/12/2015					
n-Propylbenzene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.8	70-130	0.256	30
o-Xylene	46.7 ug/L	1	ug/L	50.0	<1 ug/L	93.1	80-120	2.35	30
sec-Butylbenzene	46.5 ug/L	1	ug/L	50.0	<1 ug/L	92.9	70-125	0.669	30
Styrene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.4	65-135	1.19	30
tert-Butylbenzene	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.1	70-130	1.09	30
Tetrachloroethylene (PCE)	55.9 ug/L	1	ug/L	50.0	<1 ug/L	112	45-150	4.72	30
Toluene	44.2 ug/L	1	ug/L	50.0	<1 ug/L	88.2	75-120	0.450	30
trans-1,2-Dichloroethylene	43.4 ug/L	1	ug/L	50.0	<1 ug/L	86.8	60-140	1.08	30
trans-1,3-Dichloropropene	45.8 ug/L	1	ug/L	50.0	<1 ug/L	91.6	55-140	1.04	30
Trichloroethylene	41.6 ug/L	1	ug/L	50.0	<1 ug/L	83.2	70-125	2.17	30
Trichlorofluoromethane	37.9 ug/L	1	ug/L	50.0	<1 ug/L	75.8	60-145	1.41	30
Vinyl chloride	43.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	86.2	50-145	0.885	30
<i>Surr: 1,2-Dichloroethane-d4</i>	48.0		ug/L	50.0		96.1	70-120		
<i>Surr: 4-Bromofluorobenzene</i>	48.9		ug/L	50.0		97.7	75-120		
<i>Surr: Dibromofluoromethane</i>	48.4		ug/L	50.0		96.7	80-119		
<i>Surr: Toluene-d8</i>	48.9		ug/L	50.0		97.8	85-120		



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0222 - SW3510C

Blank (BYL0222-BLK1)	Prepared: 12/09/2015 Analyzed: 12/10/2015								
1,2,4,5-Tetrachlorobenzene	<10.0 ug/L	10.0	ug/L						
1,2,4-Trichlorobenzene	<10.0 ug/L	10.0	ug/L						
1,2-Dichlorobenzene	<10.0 ug/L	10.0	ug/L						
1,2-Diphenylhydrazine	<10.0 ug/L	10.0	ug/L						
1,3-Dichlorobenzene	<10.0 ug/L	10.0	ug/L						
1,3-Dinitrobenzene	<2.50 ug/L	2.50	ug/L						
1,4-Dichlorobenzene	<10.0 ug/L	10.0	ug/L						
1-Naphthylamine	<10.0 ug/L	10.0	ug/L						
2,3,4,6-Tetrachlorophenol	<10.0 ug/L	10.0	ug/L						
2,4,5-Trichlorophenol	<10.0 ug/L	10.0	ug/L						
2,4,6-Trichlorophenol	<10.0 ug/L	10.0	ug/L						
2,4-Dichlorophenol	<10.0 ug/L	10.0	ug/L						
2,4-Dimethylphenol	<0.50 ug/L	0.50	ug/L						
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L						
2,4-Dinitrotoluene	<10.0 ug/L	10.0	ug/L						
2,6-Dichlorophenol	<10.0 ug/L	10.0	ug/L						
2,6-Dinitrotoluene	<10.0 ug/L	10.0	ug/L						
2-Chloronaphthalene	<10.0 ug/L	10.0	ug/L						
2-Chlorophenol	<10.0 ug/L	10.0	ug/L						
2-Methylnaphthalene	<10.0 ug/L	10.0	ug/L						
2-Naphthylamine	<10.0 ug/L	10.0	ug/L						
2-Nitroaniline	<20.0 ug/L	20.0	ug/L						
2-Nitrophenol	<10.0 ug/L	10.0	ug/L						
3,3'-Dichlorobenzidine	<10.0 ug/L	10.0	ug/L						
3-Methylcholanthrene	<10.0 ug/L	10.0	ug/L						
3-Nitroaniline	<20.0 ug/L	20.0	ug/L						
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L						
4-Aminobiphenyl	<10.0 ug/L	10.0	ug/L						
4-Bromophenyl phenyl ether	<10.0 ug/L	10.0	ug/L						
4-Chloroaniline	<10.0 ug/L	10.0	ug/L						
4-Chlorophenyl phenyl ether	<10.0 ug/L	10.0	ug/L						



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0222 - SW3510C

Blank (BYL0222-BLK1) Prepared: 12/09/2015 Analyzed: 12/10/2015

4-Nitroaniline	<20.0 ug/L	20.0	ug/L
4-Nitrophenol	<50.0 ug/L	50.0	ug/L
7,12-Dimethylbenz (a) anthracene	<10.0 ug/L	10.0	ug/L
Acenaphthene	<10.0 ug/L	10.0	ug/L
Acenaphthylene	<10.0 ug/L	10.0	ug/L
Acetophenone	<20.0 ug/L	20.0	ug/L
Aniline	<50.0 ug/L	50.0	ug/L
Anthracene	<10.0 ug/L	10.0	ug/L
Benzidine	<50.0 ug/L	50.0	ug/L
Benzo (a) anthracene	<0.05 ug/L	0.05	ug/L
Benzo (a) pyrene	<10.0 ug/L	10.0	ug/L
Benzo (b) fluoranthene	<10.0 ug/L	10.0	ug/L
Benzo (g,h,i) perylene	<10.0 ug/L	10.0	ug/L
Benzo (k) fluoranthene	<10.0 ug/L	10.0	ug/L
Benzoic acid	<50.0 ug/L	50.0	ug/L
Benzyl alcohol	<20.0 ug/L	20.0	ug/L
bis (2-Chloroethoxy) methane	<10.0 ug/L	10.0	ug/L
bis (2-Chloroethyl) ether	<10.0 ug/L	10.0	ug/L
bis (2-Chloroisopropyl) ether	<10.0 ug/L	10.0	ug/L
bis (2-Ethylhexyl) phthalate	<10.0 ug/L	10.0	ug/L
Butyl benzyl phthalate	<10.0 ug/L	10.0	ug/L
Chrysene	<10.0 ug/L	10.0	ug/L
Dibenz (a,h) anthracene	<10.0 ug/L	10.0	ug/L
Dibenz (a,j) acridine	<10.0 ug/L	10.0	ug/L
Dibenzofuran	<5.00 ug/L	5.00	ug/L
Diethyl phthalate	<10.0 ug/L	10.0	ug/L
Dimethyl phthalate	<10.0 ug/L	10.0	ug/L
Di-n-butyl phthalate	<10.0 ug/L	10.0	ug/L
Di-n-octyl phthalate	<10.0 ug/L	10.0	ug/L
Diphenylamine	<10.0 ug/L	10.0	ug/L
Ethyl methanesulfonate	<20.0 ug/L	20.0	ug/L



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Qual
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Batch BYL0222 - SW3510C

Blank (BYL0222-BLK1)	Prepared: 12/09/2015 Analyzed: 12/10/2015						
Fluoranthene	<10.0 ug/L	10.0	ug/L				
Fluorene	<10.0 ug/L	10.0	ug/L				
Hexachlorobenzene	<1.00 ug/L	1.00	ug/L				
Hexachlorobutadiene	<10.0 ug/L	10.0	ug/L				
Hexachlorocyclopentadiene	<10.0 ug/L	10.0	ug/L				
Hexachloroethane	<10.0 ug/L	10.0	ug/L				
Indeno (1,2,3-cd) pyrene	<10.0 ug/L	10.0	ug/L				
Isophorone	<10.0 ug/L	10.0	ug/L				
m+p-Cresols	<10.0 ug/L	10.0	ug/L				
Methyl methanesulfonate	<10.0 ug/L	10.0	ug/L				
Naphthalene	<5.00 ug/L	5.00	ug/L				
Nitrobenzene	<10.0 ug/L	10.0	ug/L				
n-Nitrosodimethylamine	<10.0 ug/L	10.0	ug/L				
n-Nitrosodi-n-butylamine	<10.0 ug/L	10.0	ug/L				
n-Nitrosodi-n-propylamine	<10.0 ug/L	10.0	ug/L				
n-Nitrosodiphenylamine	<10.0 ug/L	10.0	ug/L				
n-Nitrosopiperidine	<10.0 ug/L	10.0	ug/L				
o+m+p-Cresols	<10.0 ug/L	10.0	ug/L				
o-Cresol	<10.0 ug/L	10.0	ug/L				
p-(Dimethylamino) azobenzene	<2.50 ug/L	2.50	ug/L				
p-Chloro-m-cresol	<10.0 ug/L	10.0	ug/L				
Pentachloronitrobenzene (quintozone)	<10.0 ug/L	10.0	ug/L				
Pentachlorophenol	<20.0 ug/L	20.0	ug/L				
Phenacetin	<10.0 ug/L	10.0	ug/L				
Phenanthrene	<10.0 ug/L	10.0	ug/L				
Phenol	<10.0 ug/L	10.0	ug/L				
Pronamide	<10.0 ug/L	10.0	ug/L				
Pyrene	<10.0 ug/L	10.0	ug/L				
Pyridine	<10.0 ug/L	10.0	ug/L				
<i>Surr: 2,4,6-Tribromophenol</i>	89.1	ug/L	100		89.1	40-125	
<i>Surr: 2-Fluorobiphenyl</i>	25.9	ug/L	50.0		51.9	23-87	



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0222 - SW3510C

Blank (BYL0222-BLK1)		Prepared: 12/09/2015 Analyzed: 12/10/2015							
Surr: 2-Fluorophenol	35.9		ug/L	100		35.9	14-52		
Surr: Nitrobenzene-d5	27.8		ug/L	50.0		55.7	40-110		
Surr: Phenol-d5	23.8		ug/L	100		23.8	5-33		
Surr: p-Terphenyl-d14	63.3		ug/L	50.0		127	27-133		

LCS (BYL0222-BS1)		Prepared: 12/09/2015 Analyzed: 12/10/2015						
1,2,4-Trichlorobenzene	30.5 ug/L	10.0	ug/L	49.7		61.3	21.8-66.7	
1,4-Dichlorobenzene	26.2 ug/L	10.0	ug/L	50.0		52.4	20-124	
2,4-Dinitrotoluene	29.7 ug/L	10.0	ug/L	50.0		59.5	39-139	
2-Chlorophenol	56.1 ug/L	10.0	ug/L	99.0		56.7	35-105	
4-Nitrophenol	<50.0 ug/L	50.0	ug/L	100		16.4	0-125	J
Acenaphthene	30.2 ug/L	10.0	ug/L	49.8		60.7	45-110	
n-Nitrosodi-n-propylamine	33.1 ug/L	10.0	ug/L	49.8		66.5	35-130	
p-Chloro-m-cresol	73.3 ug/L	10.0	ug/L	100		73.3	45-110	
Pentachlorophenol	85.7 ug/L	20.0	ug/L	99.0		86.6	40-115	
Phenol	29.0 ug/L	10.0	ug/L	100		29.0	0-115	
Pyrene	36.3 ug/L	10.0	ug/L	50.0		72.5	50-130	
Surr: 2,4,6-Tribromophenol	92.6		ug/L	100		92.6	40-125	
Surr: 2-Fluorobiphenyl	31.6		ug/L	50.0		63.2	23-87	
Surr: 2-Fluorophenol	39.4		ug/L	100		39.4	14-52	
Surr: Nitrobenzene-d5	28.7		ug/L	50.0		57.3	40-110	
Surr: Phenol-d5	28.5		ug/L	100		28.5	5-33	
Surr: p-Terphenyl-d14	55.1		ug/L	50.0		110	27-133	

Matrix Spike (BYL0222-MS1)		Source: 15L0188-03 Prepared: 12/09/2015 Analyzed: 12/10/2015					
1,2,4-Trichlorobenzene	31.4 ug/L	10.4	ug/L	51.8 <10.4 ug/L	60.6	44-142	
1,4-Dichlorobenzene	29.7 ug/L	10.4	ug/L	52.1 <10.4 ug/L	57.1	20-124	
2,4-Dinitrotoluene	33.2 ug/L	10.4	ug/L	52.1 <10.4 ug/L	63.8	39-139	
2-Chlorophenol	60.3 ug/L	10.4	ug/L	103 <10.4 ug/L	58.5	35-105	
4-Nitrophenol	<52.1 ug/L	52.1	ug/L	104 <52.1 ug/L	33.3	0-125	J
Acenaphthene	29.4 ug/L	10.4	ug/L	51.8 <10.4 ug/L	56.7	4-98	
n-Nitrosodi-n-propylamine	28.9 ug/L	10.4	ug/L	51.9 <10.4 ug/L	55.7	35-130	



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0222 - SW3510C

Matrix Spike (BYL0222-MS1)		Source: 15L0188-03		Prepared: 12/09/2015		Analyzed: 12/10/2015				
p-Chloro-m-cresol	78.2 ug/L	10.4	ug/L	104	<10.4 ug/L	75.1	45-110			
Pentachlorophenol	103 ug/L	20.8	ug/L	103	<20.8 ug/L	99.8	40-115			
Phenol	25.4 ug/L	10.4	ug/L	104	<10.4 ug/L	24.4	0-115			
Pyrene	37.0 ug/L	10.4	ug/L	52.1	<10.4 ug/L	71.1	50-130			
<i>Surr: 2,4,6-Tribromophenol</i>	99.1		ug/L	104		95.1	40-125			
<i>Surr: 2-Fluorobiphenyl</i>	28.3		ug/L	52.1		54.3	23-87			
<i>Surr: 2-Fluorophenol</i>	37.9		ug/L	104		36.4	14-52			
<i>Surr: Nitrobenzene-d5</i>	29.6		ug/L	52.1		56.8	40-110			
<i>Surr: Phenol-d5</i>	24.3		ug/L	104		23.3	5-33			
<i>Surr: p-Terphenyl-d14</i>	49.5		ug/L	52.1		95.0	27-133			
Matrix Spike Dup (BYL0222-MSD1)		Source: 15L0188-03		Prepared: 12/09/2015		Analyzed: 12/10/2015				
1,2,4-Trichlorobenzene	41.0 ug/L	10.3	ug/L	51.2	<10.3 ug/L	80.0	44-142	26.5	20	P
1,4-Dichlorobenzene	36.5 ug/L	10.3	ug/L	51.5	<10.3 ug/L	70.8	20-124	20.5	20	P
2,4-Dinitrotoluene	38.7 ug/L	10.3	ug/L	51.5	<10.3 ug/L	75.0	39-139	15.1	20	
2-Chlorophenol	74.8 ug/L	10.3	ug/L	102	<10.3 ug/L	73.3	35-105	21.5	20	P
4-Nitrophenol	<51.5 ug/L	51.5	ug/L	103	<51.5 ug/L	40.6	0-125	18.7	20	J
Acenaphthene	35.7 ug/L	10.3	ug/L	51.3	<10.3 ug/L	69.6	4-98	19.5	20	
n-Nitrosodi-n-propylamine	36.2 ug/L	10.3	ug/L	51.3	<10.3 ug/L	70.4	35-130	22.3	20	P
p-Chloro-m-cresol	95.0 ug/L	10.3	ug/L	103	<10.3 ug/L	92.1	45-110	19.3	20	
Pentachlorophenol	127 ug/L	20.6	ug/L	102	<20.6 ug/L	124	40-115	20.6	20	M, P
Phenol	30.9 ug/L	10.3	ug/L	103	<10.3 ug/L	30.0	0-115	19.4	20	
Pyrene	44.9 ug/L	10.3	ug/L	51.5	<10.3 ug/L	87.2	50-130	19.3	20	
<i>Surr: 2,4,6-Tribromophenol</i>	125		ug/L	103		121	40-125			
<i>Surr: 2-Fluorobiphenyl</i>	37.6		ug/L	51.5		72.9	23-87			
<i>Surr: 2-Fluorophenol</i>	46.4		ug/L	103		45.1	14-52			
<i>Surr: Nitrobenzene-d5</i>	37.2		ug/L	51.5		72.2	40-110			
<i>Surr: Phenol-d5</i>	30.3		ug/L	103		29.4	5-33			
<i>Surr: p-Terphenyl-d14</i>	62.5		ug/L	51.5		121	27-133			



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0292 - SW3550C

Blank (BYL0292-BLK1) Prepared & Analyzed: 12/11/2015

1,2,4,5-Tetrachlorobenzene	<83.3 ug/kg	83.3	ug/kg						
1,2,4-Trichlorobenzene	<83.3 ug/kg	83.3	ug/kg						
1,2-Dichlorobenzene	<83.3 ug/kg	83.3	ug/kg						
1,2-Diphenylhydrazine	<83.3 ug/kg	83.3	ug/kg						
1,3-Dichlorobenzene	<83.3 ug/kg	83.3	ug/kg						
1,4-Dichlorobenzene	<83.3 ug/kg	83.3	ug/kg						
1-Chloronaphthalene	<83.3 ug/kg	83.3	ug/kg						
1-Naphthylamine	<83.3 ug/kg	83.3	ug/kg						
2,3,4,6-Tetrachlorophenol	<83.3 ug/kg	83.3	ug/kg						
2,4,5-Trichlorophenol	<83.3 ug/kg	83.3	ug/kg						
2,4,6-Trichlorophenol	<83.3 ug/kg	83.3	ug/kg						
2,4-Dichlorophenol	<83.3 ug/kg	83.3	ug/kg						
2,4-Dimethylphenol	<83.3 ug/kg	83.3	ug/kg						
2,4-Dinitrophenol	<83.3 ug/kg	83.3	ug/kg						
2,4-Dinitrotoluene	<83.3 ug/kg	83.3	ug/kg						
2,6-Dichlorophenol	<83.3 ug/kg	83.3	ug/kg						
2,6-Dinitrotoluene	<83.3 ug/kg	83.3	ug/kg						
2-Chloronaphthalene	<83.3 ug/kg	83.3	ug/kg						
2-Chlorophenol	<83.3 ug/kg	83.3	ug/kg						
2-Methylnaphthalene	<83.3 ug/kg	83.3	ug/kg						
2-Naphthylamine	<83.3 ug/kg	83.3	ug/kg						
2-Nitroaniline	<83.3 ug/kg	83.3	ug/kg						
2-Nitrophenol	<83.3 ug/kg	83.3	ug/kg						
3,3'-Dichlorobenzidine	<83.3 ug/kg	83.3	ug/kg						
3-Methylcholanthrene	<83.3 ug/kg	83.3	ug/kg						
3-Nitroaniline	<83.3 ug/kg	83.3	ug/kg						
4,6-Dinitro-2-methylphenol	<83.3 ug/kg	83.3	ug/kg						
4-Aminobiphenyl	<83.3 ug/kg	83.3	ug/kg						
4-Bromophenyl phenyl ether	<83.3 ug/kg	83.3	ug/kg						
4-Chloroaniline	<83.3 ug/kg	83.3	ug/kg						
4-Chlorophenyl phenyl ether	<83.3 ug/kg	83.3	ug/kg						



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0292 - SW3550C

Blank (BYL0292-BLK1) Prepared & Analyzed: 12/11/2015

4-Nitroaniline	<83.3 ug/kg	83.3	ug/kg						
4-Nitrophenol	<83.3 ug/kg	83.3	ug/kg						
7,12-Dimethylbenz (a) anthracene	<83.3 ug/kg	83.3	ug/kg						
Acenaphthene	<83.3 ug/kg	83.3	ug/kg						
Acenaphthylene	<83.3 ug/kg	83.3	ug/kg						
Acetophenone	<83.3 ug/kg	83.3	ug/kg						
Aniline	<83.3 ug/kg	83.3	ug/kg						
Anthracene	<83.3 ug/kg	83.3	ug/kg						
Benzidine	<83.3 ug/kg	83.3	ug/kg						
Benzo (a) anthracene	<83.3 ug/kg	83.3	ug/kg						
Benzo (a) pyrene	<83.3 ug/kg	83.3	ug/kg						
Benzo (b) fluoranthene	<83.3 ug/kg	83.3	ug/kg						
Benzo (g,h,i) perylene	<83.3 ug/kg	83.3	ug/kg						
Benzo (k) fluoranthene	<83.3 ug/kg	83.3	ug/kg						
Benzoic acid	<83.3 ug/kg	83.3	ug/kg						
Benzyl alcohol	<83.3 ug/kg	83.3	ug/kg						
bis (2-Chloroethoxy) methane	<83.3 ug/kg	83.3	ug/kg						
bis (2-Chloroethyl) ether	<83.3 ug/kg	83.3	ug/kg						
bis (2-Chloroisopropyl) ether	<83.3 ug/kg	83.3	ug/kg						
bis (2-Ethylhexyl) phthalate	<83.3 ug/kg	83.3	ug/kg						
Butyl benzyl phthalate	<83.3 ug/kg	83.3	ug/kg						
Chrysene	<83.3 ug/kg	83.3	ug/kg						
Dibenz (a,h) anthracene	<83.3 ug/kg	83.3	ug/kg						
Dibenz (a,j) acridine	<83.3 ug/kg	83.3	ug/kg						
Dibenzofuran	<83.3 ug/kg	83.3	ug/kg						
Diethyl phthalate	<83.3 ug/kg	83.3	ug/kg						
Dimethyl phthalate	<83.3 ug/kg	83.3	ug/kg						
Di-n-butyl phthalate	<83.3 ug/kg	83.3	ug/kg						
Di-n-octyl phthalate	<83.3 ug/kg	83.3	ug/kg						
Diphenylamine	<83.3 ug/kg	83.3	ug/kg						
Ethyl methanesulfonate	<83.3 ug/kg	83.3	ug/kg						



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Final Report

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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0292 - SW3550C

Blank (BYL0292-BLK1)	Prepared & Analyzed: 12/11/2015							
Fluoranthene	<83.3 ug/kg	83.3	ug/kg					
Fluorene	<83.3 ug/kg	83.3	ug/kg					
Hexachlorobenzene	<83.3 ug/kg	83.3	ug/kg					
Hexachlorobutadiene	<83.3 ug/kg	83.3	ug/kg					
Hexachlorocyclopentadiene	<83.3 ug/kg	83.3	ug/kg					
Hexachloroethane	<83.3 ug/kg	83.3	ug/kg					
Indeno (1,2,3-cd) pyrene	<83.3 ug/kg	83.3	ug/kg					
Isophorone	<83.3 ug/kg	83.3	ug/kg					
m+p-Cresols	<83.3 ug/kg	83.3	ug/kg					
Methyl methanesulfonate	<83.3 ug/kg	83.3	ug/kg					
Naphthalene	<83.3 ug/kg	83.3	ug/kg					
Nitrobenzene	<83.3 ug/kg	83.3	ug/kg					
n-Nitrosodimethylamine	<83.3 ug/kg	83.3	ug/kg					
n-Nitrosodi-n-butylamine	<83.3 ug/kg	83.3	ug/kg					
n-Nitrosodi-n-propylamine	<83.3 ug/kg	83.3	ug/kg					
n-Nitrosodiphenylamine	<83.3 ug/kg	83.3	ug/kg					
n-Nitrosopiperidine	<83.3 ug/kg	83.3	ug/kg					
o+m+p-Cresols	<83.3 ug/kg	83.3	ug/kg					
o-Cresol	<83.3 ug/kg	83.3	ug/kg					
p-(Dimethylamino) azobenzene	<83.3 ug/kg	83.3	ug/kg					
p-Chloro-m-cresol	<83.3 ug/kg	83.3	ug/kg					
Pentachloronitrobenzene (quintozone)	<83.3 ug/kg	83.3	ug/kg					
Pentachlorophenol	<83.3 ug/kg	83.3	ug/kg					
Phenacetin	<83.3 ug/kg	83.3	ug/kg					
Phenanthrene	<83.3 ug/kg	83.3	ug/kg					
Phenol	<83.3 ug/kg	83.3	ug/kg					
Pronamide	<83.3 ug/kg	83.3	ug/kg					
Pyrene	<83.3 ug/kg	83.3	ug/kg					
Pyridine	<83.3 ug/kg	83.3	ug/kg					
<i>Surr: 2,4,6-Tribromophenol</i>	2480	ug/kg	3240		76.6	35-125		
<i>Surr: 2-Fluorobiphenyl</i>	953	ug/kg	1620		58.9	45-105		



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Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0292 - SW3550C

Blank (BYL0292-BLK1)							Prepared & Analyzed: 12/11/2015		
Surr: 2-Fluorophenol	1820		ug/kg	3240		56.3	35-105		
Surr: Nitrobenzene-d5	947		ug/kg	1620		58.5	35-100		
Surr: Phenol-d5	1840		ug/kg	3240		56.9	40-100		
Surr: p-Terphenyl-d14	1440		ug/kg	1620		89.1	30-125		
LCS (BYL0292-BS1)							Prepared & Analyzed: 12/11/2015		
1,2,4-Trichlorobenzene	1060 ug/kg	83.3	ug/kg	3290		32.1	44-142		L
1,4-Dichlorobenzene	974 ug/kg	83.3	ug/kg	3310		29.4	20-124		
4-Nitrophenol	2210 ug/kg	83.3	ug/kg	6620		33.3	15-140		
Acenaphthene	915 ug/kg	83.3	ug/kg	3290		27.8	45-110		L
n-Nitrosodi-n-propylamine	957 ug/kg	83.3	ug/kg	3300		29.0	40-115		L
Pentachlorophenol	2390 ug/kg	83.3	ug/kg	6560		36.4	25-120		
Phenol	1850 ug/kg	83.3	ug/kg	6620		27.9	40-100		L
Pyrene	978 ug/kg	83.3	ug/kg	3310		29.5	45-125		L
Surr: 2,4,6-Tribromophenol	2570		ug/kg	3310		77.5	35-125		
Surr: 2-Fluorobiphenyl	942		ug/kg	1660		56.9	45-105		
Surr: 2-Fluorophenol	1840		ug/kg	3310		55.4	35-105		
Surr: Nitrobenzene-d5	970		ug/kg	1660		58.6	35-100		
Surr: Phenol-d5	1860		ug/kg	3310		56.2	40-100		
Surr: p-Terphenyl-d14	1410		ug/kg	1660		85.4	30-125		
Matrix Spike (BYL0292-MS1)							Prepared & Analyzed: 12/11/2015		
1,2,4-Trichlorobenzene	1270 ug/kg	83.3	ug/kg	3290 <83.3 ug/kg		38.7	44-142		M
1,4-Dichlorobenzene	1190 ug/kg	83.3	ug/kg	3310 <83.3 ug/kg		36.0	20-124		
4-Nitrophenol	2480 ug/kg	83.3	ug/kg	6620 <83.3 ug/kg		37.4	15-140		
Acenaphthene	1130 ug/kg	83.3	ug/kg	3290 <83.3 ug/kg		34.3	45-110		M
n-Nitrosodi-n-propylamine	1150 ug/kg	83.3	ug/kg	3300 <83.3 ug/kg		34.9	40-115		M
Pentachlorophenol	2830 ug/kg	83.3	ug/kg	6560 <83.3 ug/kg		43.2	25-120		
Phenol	2230 ug/kg	83.3	ug/kg	6620 <83.3 ug/kg		33.7	40-100		M
Pyrene	1260 ug/kg	83.3	ug/kg	3310 <83.3 ug/kg		38.1	45-125		M
Surr: 2,4,6-Tribromophenol	3220		ug/kg	3310		97.2	35-125		



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Richmond VA, 23225
Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Organic Compounds by GCMS - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0292 - SW3550C

Matrix Spike (BYL0292-MS1)	Source: 15L0217-01		Prepared & Analyzed: 12/11/2015						
Surr: 2-Fluorobiphenyl	1160	ug/kg	1660		70.1	45-105			
Surr: 2-Fluorophenol	2280	ug/kg	3310		68.9	35-105			
Surr: Nitrobenzene-d5	1230	ug/kg	1660		74.0	35-100			
Surr: Phenol-d5	2320	ug/kg	3310		70.1	40-100			
Surr: p-Terphenyl-d14	1920	ug/kg	1660		116	30-125			
Matrix Spike Dup (BYL0292-MSD1)	Source: 15L0217-01		Prepared & Analyzed: 12/11/2015						
1,2,4-Trichlorobenzene	1080 ug/kg	83.3	ug/kg	3260 <83.3 ug/kg	33.1	44-142	16.8	20	M
1,4-Dichlorobenzene	1000 ug/kg	83.3	ug/kg	3280 <83.3 ug/kg	30.5	20-124	17.5	20	
4-Nitrophenol	2100 ug/kg	83.3	ug/kg	6560 <83.3 ug/kg	32.0	15-140	16.6	20	
Acenaphthene	908 ug/kg	83.3	ug/kg	3260 <83.3 ug/kg	27.8	45-110	21.8	20	M, P
n-Nitrosodi-n-propylamine	990 ug/kg	83.3	ug/kg	3270 <83.3 ug/kg	30.3	40-115	14.9	20	M
Pentachlorophenol	2610 ug/kg	83.3	ug/kg	6490 <83.3 ug/kg	40.2	25-120	8.23	20	
Phenol	1890 ug/kg	83.3	ug/kg	6560 <83.3 ug/kg	28.9	40-100	16.3	20	M
Pyrene	1070 ug/kg	83.3	ug/kg	3280 <83.3 ug/kg	32.6	45-125	16.5	20	M
Surr: 2,4,6-Tribromophenol	2660	ug/kg	3280		81.2	35-125			
Surr: 2-Fluorobiphenyl	922	ug/kg	1640		56.3	45-105			
Surr: 2-Fluorophenol	1900	ug/kg	3280		57.8	35-105			
Surr: Nitrobenzene-d5	991	ug/kg	1640		60.4	35-100			
Surr: Phenol-d5	1890	ug/kg	3280		57.7	40-100			
Surr: p-Terphenyl-d14	1520	ug/kg	1640		92.6	30-125			



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Richmond VA, 23225
Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Hydrocarbons by GC - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0232 - SW8100

Blank (BYL0232-BLK1)						Prepared & Analyzed: 12/09/2015			
TPH-Semi-Volatiles (DRO)	<0.50 mg/L	0.50	mg/L						
Surr: Pentacosane	0.218		mg/L	0.250		87.4	40-160		
LCS (BYL0232-BS1)						Prepared & Analyzed: 12/09/2015			
TPH-Semi-Volatiles (DRO)	4.1 mg/L	0.50	mg/L	5.00		82.6	40-160		
Surr: Pentacosane	0.226		mg/L	0.250		90.6	40-160		
Matrix Spike (BYL0232-MS1)						Source: 15L0155-01 Prepared & Analyzed: 12/09/2015			
TPH-Semi-Volatiles (DRO)	4.5 mg/L	0.50	mg/L	5.26	<0.50 mg/L	85.9	40-160		
Surr: Pentacosane	0.250		mg/L	0.263		94.9	40-160		
Matrix Spike Dup (BYL0232-MSD1)						Source: 15L0155-01 Prepared & Analyzed: 12/09/2015			
TPH-Semi-Volatiles (DRO)	3.9 mg/L	0.50	mg/L	5.26	<0.50 mg/L	74.5	40-160	14.2	20
Surr: Pentacosane	0.222		mg/L	0.263		84.5	40-160		

Batch BYL0236 - SW8100

Blank (BYL0236-BLK1)						Prepared: 12/09/2015 Analyzed: 12/10/2015			
TPH-Semi-Volatiles (DRO)	<10.0 mg/kg	10.0	mg/kg						
Surr: Pentacosane	3.60		mg/kg	4.91		73.3	40-160		
LCS (BYL0236-BS1)						Prepared: 12/09/2015 Analyzed: 12/10/2015			
TPH-Semi-Volatiles (DRO)	71.3 mg/kg	10.0	mg/kg	99.2		71.9	40-160		
Surr: Pentacosane	4.15		mg/kg	4.96		83.7	40-160		
Matrix Spike (BYL0236-MS1)						Source: 15L0222-01 Prepared: 12/09/2015 Analyzed: 12/10/2015			
TPH-Semi-Volatiles (DRO)	67.3 mg/kg	10.0	mg/kg	99.4	<10.0 mg/kg	67.7	40-160		
Surr: Pentacosane	3.29		mg/kg	4.97		66.1	40-160		



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Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Semivolatile Hydrocarbons by GC - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0236 - SW8100

Matrix Spike Dup (BYL0236-MSD1)		Source: 15L0222-01		Prepared: 12/09/2015 Analyzed: 12/11/2015					
TPH-Semi-Volatiles (DRO)	74.0 mg/kg	10.0	mg/kg	99.6	<10.0 mg/kg	74.3	40-160	9.54	20
Surr: Pentacosane	3.53		mg/kg	4.98		70.8	40-160		

Batch BYL0237 - SW8100

Blank (BYL0237-BLK1)		Prepared: 12/09/2015 Analyzed: 12/10/2015							
TPH-Semi-Volatiles (ORO)	<10.0 mg/kg	10.0	mg/kg						
LCS (BYL0237-BS1)						Prepared: 12/09/2015 Analyzed: 12/10/2015			
TPH-Semi-Volatiles (ORO)	51.8 mg/kg	10.0	mg/kg	98.2		52.8	40-160		
Matrix Spike (BYL0237-MS1)		Source: 15L0122-02		Prepared: 12/09/2015 Analyzed: 12/10/2015					
TPH-Semi-Volatiles (ORO)	120 mg/kg	10.0	mg/kg	94.5	80.2 mg/kg	41.7	40-160		
Matrix Spike Dup (BYL0237-MSD1)		Source: 15L0122-02		Prepared: 12/09/2015 Analyzed: 12/10/2015					
TPH-Semi-Volatiles (ORO)	133 mg/kg	10.0	mg/kg	95.1	80.2 mg/kg	55.7	40-160	10.7	20

Batch BYL0267 - SW8100

Blank (BYL0267-BLK1)		Prepared: 12/10/2015 Analyzed: 12/11/2015					
TPH-Semi-Volatiles (DRO)	<10.0 mg/kg	10.0	mg/kg				
Surr: Pentacosane							
	3.61		mg/kg	4.97		72.6	40-160
LCS (BYL0267-BS1)							
TPH-Semi-Volatiles (DRO)	69.7 mg/kg	10.0	mg/kg	98.4		70.8	40-160
Surr: Pentacosane	3.18		mg/kg	4.92		64.6	40-160



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Semivolatile Hydrocarbons by GC - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0267 - SW8100

<u>Matrix Spike (BYL0267-MS1)</u>		Source: 15L0256-08		Prepared: 12/10/2015 Analyzed: 12/11/2015					
TPH-Semi-Volatiles (DRO)	76.8 mg/kg	10.0	mg/kg	99.8	<10.0 mg/kg	77.0	40-160		
Surr: Pentacosane	3.38		mg/kg	4.99		67.7	40-160		
<u>Matrix Spike Dup (BYL0267-MSD1)</u>		Source: 15L0256-08		Prepared: 12/10/2015 Analyzed: 12/12/2015					
TPH-Semi-Volatiles (DRO)	82.0 mg/kg	10.0	mg/kg	99.6	<10.0 mg/kg	82.3	40-160	6.55	20
Surr: Pentacosane	3.49		mg/kg	4.98		70.0	40-160		

Batch BYL0297 - SW8100

<u>Blank (BYL0297-BLK1)</u>		Prepared: 12/11/2015 Analyzed: 12/12/2015							
TPH-Semi-Volatiles (ORO)	<1.0 mg/L	1.0	mg/L						
<u>LCS (BYL0297-BS1)</u>		Prepared: 12/11/2015 Analyzed: 12/12/2015							
TPH-Semi-Volatiles (ORO)	3.1 mg/L	1.0	mg/L	5.00		62.3	40-160		
<u>Matrix Spike (BYL0297-MS1)</u>		Source: 15L0207-01		Prepared: 12/11/2015 Analyzed: 12/12/2015					
TPH-Semi-Volatiles (ORO)	3.6 mg/L	1.1	mg/L	5.68	<1.1 mg/L	63.0	40-160		
<u>Matrix Spike Dup (BYL0297-MSD1)</u>		Source: 15L0207-01		Prepared: 12/11/2015 Analyzed: 12/12/2015					
TPH-Semi-Volatiles (ORO)	4.0 mg/L	1.1	mg/L	5.62	<1.1 mg/L	71.4	40-160	11.3	20



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Organochlorine Pesticides and PCBs by GC/ECD - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	Limit Qual
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Batch BYL0235 - SW3550B

<u>Blank (BYL0235-BLK1)</u>		Prepared: 12/09/2015 Analyzed: 12/10/2015						
PCB as Aroclor 1016	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1221	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1232	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1242	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1248	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1254	<0.100 mg/kg wet	0.100	mg/kg wet					
PCB as Aroclor 1260	<0.100 mg/kg wet	0.100	mg/kg wet					
<i>Surr: DCB</i>	0.0347		mg/kg wet	0.0330		105	30-105	
<i>Surr: TCMX</i>	0.0215		mg/kg wet	0.0330		65.0	30-105	
<u>LCS (BYL0235-BS1)</u>		Prepared: 12/09/2015 Analyzed: 12/10/2015						
PCB as Aroclor 1016	0.158 mg/kg wet	0.100	mg/kg wet	0.166		95.0	60-140	
PCB as Aroclor 1260	0.130 mg/kg wet	0.100	mg/kg wet	0.166		78.0	60-140	
<i>Surr: DCB</i>	0.0316		mg/kg wet	0.0332		95.0	30-105	
<i>Surr: TCMX</i>	0.0249		mg/kg wet	0.0332		75.0	30-105	
<u>Matrix Spike (BYL0235-MS1)</u>		Source: 15L0222-01 Prepared: 12/09/2015 Analyzed: 12/10/2015						
PCB as Aroclor 1016	0.135 mg/kg dry	0.100	mg/kg dry	0.165	<0.100 mg/kg dry	82.0	60-140	
PCB as Aroclor 1260	0.125 mg/kg dry	0.100	mg/kg dry	0.165	<0.100 mg/kg dry	76.0	60-140	
<i>Surr: DCB</i>	0.0247		mg/kg dry	0.0330		75.0	30-105	
<i>Surr: TCMX</i>	0.0165		mg/kg dry	0.0330		50.0	30-105	
<u>Matrix Spike Dup (BYL0235-MSD1)</u>		Source: 15L0222-01 Prepared: 12/09/2015 Analyzed: 12/10/2015						
PCB as Aroclor 1016	0.164 mg/kg dry	0.105	mg/kg dry	0.174	<0.105 mg/kg dry	94.0	60-140	19.3
PCB as Aroclor 1260	0.140 mg/kg dry	0.105	mg/kg dry	0.174	<0.105 mg/kg dry	80.0	60-140	10.8
<i>Surr: DCB</i>	0.0279		mg/kg dry	0.0349		80.0	30-105	
<i>Surr: TCMX</i>	0.0279		mg/kg dry	0.0349		80.0	30-105	



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Organochlorine Pesticides and PCBs by GC/ECD - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Qual
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Batch BYL0273 - SW3510C

Prepared & Analyzed: 12/11/2015							
LCS (BYL0273-BS2)		Source: 15L0188-03					
PCB as Aroclor 1016	0.550 ug/L	0.500	ug/L	1.00	55.0	40-120	
PCB as Aroclor 1260	0.550 ug/L	0.500	ug/L	1.00	55.0	40-120	
<i>Surr: DCB</i>							
	0.0900		ug/L	0.200	45.0	30-105	
<i>Surr: TCMX</i>							
	0.110		ug/L	0.200	55.0	30-105	
Matrix Spike (BYL0273-MS2)							
PCB as Aroclor 1016	0.830 ug/L	0.532	ug/L	1.06 <0.532 ug/L	78.0	40-120	
PCB as Aroclor 1260	0.926 ug/L	0.532	ug/L	1.06 <0.532 ug/L	87.0	40-120	
<i>Surr: DCB</i>							
	0.106		ug/L	0.213	50.0	30-105	
<i>Surr: TCMX</i>							
	0.117		ug/L	0.213	55.0	30-105	
Matrix Spike Dup (BYL0273-MSD2)							
Source: 15L0188-03						Prepared & Analyzed: 12/11/2015	
PCB as Aroclor 1016	1.26 ug/L	0.556	ug/L	1.11 <0.556 ug/L	113	40-120	
PCB as Aroclor 1260	1.24 ug/L	0.556	ug/L	1.11 <0.556 ug/L	112	40-120	
<i>Surr: DCB</i>							
	0.156		ug/L	0.222	70.0	30-105	
<i>Surr: TCMX</i>							
	0.167		ug/L	0.222	75.0	30-105	



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BYL0250 - No Prep Halides

Blank (BYL0250-BLK1)							Prepared & Analyzed: 12/10/2015			
Percent Solids	100 %	0.10	%							
Duplicate (BYL0250-DUP1)		Source: 15L0217-07					Prepared & Analyzed: 12/10/2015			
Percent Solids	73.6 %	0.10	%		74.4 %			1.12	20	



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Certified Analyses included in this Report

Analyte	Certifications
EPA200.7 Rev 4.4 in Non-Potable Water	
Arsenic	VELAP,NC
Beryllium	VELAP,NC
Cadmium	VELAP,NC
Chromium	VELAP,NC
Copper	VELAP,NC
Lead	VELAP,NC
Nickel	VELAP,NC
Silver	VELAP,NC
Zinc	VELAP,NC
EPA200.9 R2.2 in Non-Potable Water	
Antimony	VELAP,NC
Selenium	VELAP,NC
Thallium	VELAP,NC
EPA245.1 R3.0 in Non-Potable Water	
Mercury	VELAP,NC
SW6010C in Solids	
Antimony	VELAP,NC
Arsenic	VELAP,NC
Beryllium	VELAP,NC
Cadmium	VELAP,NC,WVDEP
Chromium	VELAP,NC
Copper	VELAP,NC
Lead	VELAP,NC,WVDEP
Nickel	VELAP,NC
Selenium	VELAP,NC,WVDEP
Silver	VELAP,NC,WVDEP
Thallium	VELAP,NC
Zinc	VELAP,NC
SW7471B in Solids	
Mercury	VELAP,WVDEP
SW8015C in Non-Potable Water	
TPH-Semi-Volatiles (DRO)	VELAP,NC,WVDEP
TPH-Semi-Volatiles (ORO)	VELAP
SW8015C in Solids	
TPH-Semi-Volatiles (DRO)	VELAP,NC,WVDEP



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Certificate of Analysis

Final Report

Client Name: Timmons Group Date Issued: 12/16/2015 14:36
1001 Boulders Parkway, Suite 300
Richmond VA, 23225

Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Certified Analyses included in this Report

Analyte	Certifications
TPH-Semi-Volatiles (ORO)	VELAP
<i>SW8082A in Non-Potable Water</i>	
PCB as Aroclor 1016	VELAP,NC
PCB as Aroclor 1221	VELAP,NC
PCB as Aroclor 1232	VELAP,NC
PCB as Aroclor 1242	VELAP,NC
PCB as Aroclor 1248	VELAP,NC
PCB as Aroclor 1254	VELAP,NC
PCB as Aroclor 1260	VELAP,NC
<i>SW8082A in Solids</i>	
PCB as Aroclor 1016	VELAP,NC
PCB as Aroclor 1221	VELAP,NC
PCB as Aroclor 1232	VELAP,NC
PCB as Aroclor 1242	VELAP,NC
PCB as Aroclor 1248	VELAP,NC
PCB as Aroclor 1254	VELAP,NC
PCB as Aroclor 1260	VELAP,NC
<i>SW8260B in Non-Potable Water</i>	
1,1,1,2-Tetrachloroethane	NC,VELAP,WVDEP
1,1,1-Trichloroethane	NC,VELAP,WVDEP
1,1,2,2-Tetrachloroethane	NC,VELAP,WVDEP
1,1,2-Trichloroethane	NC,VELAP,WVDEP
1,1-Dichloroethane	NC,VELAP,WVDEP
1,1-Dichloroethylene	NC,VELAP,WVDEP
1,1-Dichloropropene	NC,VELAP,WVDEP
1,2,3-Trichlorobenzene	NC,VELAP,WVDEP
1,2,3-Trichloropropane	NC,VELAP,WVDEP
1,2,4-Trichlorobenzene	NC,VELAP,WVDEP
1,2,4-Trimethylbenzene	NC,VELAP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	NC,VELAP,WVDEP
1,2-Dibromoethane (EDB)	NC,VELAP,WVDEP
1,2-Dichlorobenzene	NC,VELAP,WVDEP
1,2-Dichloroethane	NC,VELAP,WVDEP
1,2-Dichloropropane	NC,VELAP,WVDEP
1,3,5-Trimethylbenzene	NC,WVDEP
1,3-Dichlorobenzene	NC,VELAP,WVDEP
1,3-Dichloropropane	NC,VELAP,WVDEP



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Analyte	Certifications
1,4-Dichlorobenzene	NC, VELAP, WVDEP
2,2-Dichloropropane	NC, VELAP, WVDEP
2-Butanone (MEK)	NC, VELAP, WVDEP
2-Chlorotoluene	NC, VELAP, WVDEP
2-Hexanone (MBK)	NC, VELAP, WVDEP
4-Chlorotoluene	NC, VELAP, WVDEP
4-Isopropyltoluene	NC, VELAP, WVDEP
4-Methyl-2-pentanone (MIBK)	NC, VELAP, WVDEP
Acetone	NC, VELAP, WVDEP
Benzene	NC, VELAP, WVDEP
Bromobenzene	NC, VELAP, WVDEP
Bromochloromethane	NC, VELAP, WVDEP
Bromodichloromethane	NC, VELAP, WVDEP
Bromoform	NC, VELAP, WVDEP
Bromomethane	NC, VELAP, WVDEP
Carbon disulfide	NC, VELAP, WVDEP
Carbon tetrachloride	NC, VELAP, WVDEP
Chlorobenzene	NC, VELAP, WVDEP
Chloroethane	NC, VELAP, WVDEP
Chloroform	NC, VELAP, WVDEP
Chloromethane	NC, VELAP, WVDEP
cis-1,2-Dichloroethylene	NC, VELAP, WVDEP
cis-1,3-Dichloropropene	NC, VELAP, WVDEP
Dibromochloromethane	NC, VELAP, WVDEP
Dibromomethane	NC, VELAP, WVDEP
Dichlorodifluoromethane	NC, VELAP, WVDEP
Di-isopropyl ether (DIPE)	NC, VELAP, WVDEP
Ethylbenzene	NC, VELAP, WVDEP
Hexachlorobutadiene	NC, VELAP, WVDEP
Iodomethane	NC, VELAP, WVDEP
Isopropylbenzene	NC, VELAP, WVDEP
m+p-Xylenes	NC, VELAP, WVDEP
Methylene chloride	NC, VELAP, WVDEP
Methyl-t-butyl ether (MTBE)	NC, VELAP, WVDEP
Naphthalene	NC, VELAP, WVDEP
n-Butylbenzene	NC, VELAP, WVDEP
n-Propylbenzene	NC, VELAP, WVDEP
o-Xylene	NC, VELAP, WVDEP



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Submitted To: John Russell Project Number: [none]
Client Site I.D.: Fulton Gas Works Purchase Order:

Certified Analyses included in this Report

Analyte	Certifications
sec-Butylbenzene	NC, VELAP, WVDEP
Styrene	NC, VELAP, WVDEP
tert-Butylbenzene	NC, VELAP, WVDEP
Tetrachloroethylene (PCE)	NC, VELAP, WVDEP
Toluene	NC, VELAP, WVDEP
trans-1,2-Dichloroethylene	NC, VELAP, WVDEP
trans-1,3-Dichloropropene	NC, VELAP, WVDEP
Trichloroethylene	NC, VELAP, WVDEP
Trichlorofluoromethane	NC, VELAP, WVDEP
Vinyl acetate	NC, VELAP, WVDEP
Vinyl chloride	NC, VELAP, WVDEP
Xylenes, Total	NC, VELAP, WVDEP
SW8260B in Solids	
1,1,1,2-Tetrachloroethane	NC, VELAP, WVDEP
1,1,1-Trichloroethane	NC, VELAP, WVDEP
1,1,2,2-Tetrachloroethane	NC, VELAP, WVDEP
1,1,2-Trichloroethane	NC, VELAP, WVDEP
1,1-Dichloroethane	NC, VELAP, WVDEP
1,1-Dichloroethylene	NC, VELAP, WVDEP
1,1-Dichloropropene	NC, VELAP, WVDEP
1,2,3-Trichlorobenzene	NC, VELAP, WVDEP
1,2,3-Trichloropropane	NC, VELAP, WVDEP
1,2,4-Trichlorobenzene	NC, VELAP, WVDEP
1,2,4-Trimethylbenzene	NC, VELAP, WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	NC, VELAP, WVDEP
1,2-Dibromoethane (EDB)	NC, VELAP, WVDEP
1,2-Dichlorobenzene	NC, VELAP, WVDEP
1,2-Dichloroethane	NC, VELAP, WVDEP
1,2-Dichloropropane	NC, VELAP, WVDEP
1,3,5-Trimethylbenzene	NC, VELAP, WVDEP
1,3-Dichlorobenzene	NC, VELAP, WVDEP
1,3-Dichloropropane	NC, VELAP, WVDEP
1,4-Dichlorobenzene	NC, VELAP, WVDEP
2,2-Dichloropropane	NC, VELAP, WVDEP
2-Butanone (MEK)	NC, VELAP, WVDEP
2-Chlorotoluene	NC, VELAP, WVDEP
2-Hexanone (MBK)	NC, VELAP, WVDEP



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Submitted To: John Russell Project Number: [none]
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Analyte	Certifications
4-Chlorotoluene	NC, VELAP, WVDEP
4-Isopropyltoluene	NC, VELAP, WVDEP
4-Methyl-2-pentanone (MIBK)	NC, VELAP, WVDEP
Acetone	NC, VELAP, WVDEP
Benzene	NC, VELAP, WVDEP
Bromobenzene	NC, VELAP, WVDEP
Bromochloromethane	NC, VELAP, WVDEP
Bromodichloromethane	NC, VELAP, WVDEP
Bromoform	NC, VELAP, WVDEP
Bromomethane	NC, VELAP, WVDEP
Carbon disulfide	NC, VELAP, WVDEP
Carbon tetrachloride	NC, VELAP, WVDEP
Chlorobenzene	NC, VELAP, WVDEP
Chloroethane	NC, VELAP, WVDEP
Chloroform	NC, VELAP, WVDEP
Chloromethane	NC, VELAP, WVDEP
cis-1,2-Dichloroethylene	NC, VELAP, WVDEP
cis-1,3-Dichloropropene	NC, VELAP, WVDEP
Dibromochloromethane	NC, VELAP, WVDEP
Dibromomethane	NC, VELAP, WVDEP
Dichlorodifluoromethane	NC, VELAP, WVDEP
Di-isopropyl ether (DIPE)	NC, VELAP, WVDEP
Ethylbenzene	NC, VELAP, WVDEP
Hexachlorobutadiene	NC, VELAP, WVDEP
Iodomethane	NC, VELAP, WVDEP
Isopropylbenzene	NC, VELAP, WVDEP
m+p-Xylenes	NC, VELAP, WVDEP
Methylene chloride	NC, VELAP, WVDEP
Methyl-t-butyl ether (MTBE)	NC, VELAP, WVDEP
Naphthalene	NC, VELAP, WVDEP
n-Butylbenzene	NC, VELAP, WVDEP
n-Propylbenzene	NC, VELAP, WVDEP
o-Xylene	NC, VELAP, WVDEP
sec-Butylbenzene	NC, VELAP, WVDEP
Styrene	NC, VELAP, WVDEP
tert-Butylbenzene	NC, VELAP, WVDEP
Tetrachloroethylene (PCE)	NC, VELAP, WVDEP
Toluene	NC, VELAP, WVDEP



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Analyte	Certifications
trans-1,2-Dichloroethylene	NC, VELAP, WVDEP
trans-1,3-Dichloropropene	NC, VELAP, WVDEP
Trichloroethylene	NC, VELAP, WVDEP
Trichlorofluoromethane	NC, VELAP, WVDEP
Vinyl acetate	NC, VELAP, WVDEP
Vinyl chloride	NC, VELAP, WVDEP
Xylenes, Total	NC, VELAP, WVDEP
Dibromofluoromethane	VELAP
SW8270D in Non-Potable Water	
1,2,4,5-Tetrachlorobenzene	VELAP, WVDEP, NC
1,2,4-Trichlorobenzene	VELAP, WVDEP, NC
1,2-Dichlorobenzene	VELAP, WVDEP, NC
1,2-Diphenylhydrazine	VELAP, WVDEP, NC
1,3-Dichlorobenzene	VELAP, WVDEP, NC
1,3-Dinitrobenzene	VELAP, WVDEP, NC
1,4-Dichlorobenzene	VELAP, WVDEP, NC
1-Naphthylamine	VELAP, WVDEP, NC
2,3,4,6-Tetrachlorophenol	VELAP, WVDEP, NC
2,4,5-Trichlorophenol	VELAP, WVDEP, NC
2,4,6-Trichlorophenol	VELAP, WVDEP, NC
2,4-Dichlorophenol	VELAP, WVDEP, NC
2,4-Dimethylphenol	VELAP, WVDEP, NC
2,4-Dinitrophenol	VELAP, WVDEP, NC
2,4-Dinitrotoluene	VELAP, WVDEP, NC
2,6-Dichlorophenol	VELAP, WVDEP, NC
2,6-Dinitrotoluene	VELAP, WVDEP, NC
2-Chloronaphthalene	VELAP, WVDEP, NC
2-Chlorophenol	VELAP, WVDEP, NC
2-Methylnaphthalene	VELAP, WVDEP, NC
2-Naphthylamine	VELAP, WVDEP, NC
2-Nitroaniline	VELAP, WVDEP, NC
2-Nitrophenol	VELAP, WVDEP, NC
3,3'-Dichlorobenzidine	VELAP, WVDEP, NC
3-Methylcholanthrene	VELAP, WVDEP, NC
3-Nitroaniline	VELAP, WVDEP, NC
4,6-Dinitro-2-methylphenol	VELAP, WVDEP, NC
4-Aminobiphenyl	VELAP, WVDEP, NC



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Client Site I.D.: Fulton Gas Works Purchase Order:

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Analyte	Certifications
4-Bromophenyl phenyl ether	VELAP,WVDEP,NC
4-Chloroaniline	VELAP,WVDEP,NC
4-Chlorophenyl phenyl ether	VELAP,WVDEP,NC
4-Nitroaniline	VELAP,WVDEP,NC
4-Nitrophenol	VELAP,WVDEP,NC
7,12-Dimethylbenz (a) anthracene	VELAP,WVDEP,NC
Acenaphthene	VELAP,WVDEP,NC
Acenaphthylene	VELAP,WVDEP,NC
Acetophenone	VELAP,WVDEP,NC
Aniline	VELAP,WVDEP,NC
Anthracene	VELAP,WVDEP,NC
Benzidine	VELAP,WVDEP,NC
Benzo (a) anthracene	VELAP,WVDEP,NC
Benzo (a) pyrene	VELAP,WVDEP,NC
Benzo (b) fluoranthene	VELAP,WVDEP,NC
Benzo (g,h,i) perylene	VELAP,WVDEP,NC
Benzo (k) fluoranthene	VELAP,WVDEP,NC
Benzoic acid	VELAP,WVDEP,NC
Benzyl alcohol	VELAP,WVDEP,NC
bis (2-Chloroethoxy) methane	VELAP,WVDEP,NC
bis (2-Chloroethyl) ether	VELAP,WVDEP,NC
bis (2-Chloroisopropyl) ether	VELAP,WVDEP,NC
bis (2-Ethylhexyl) phthalate	VELAP,WVDEP,NC
Butyl benzyl phthalate	VELAP,WVDEP,NC
Chrysene	VELAP,WVDEP,NC
Dibenz (a,h) anthracene	VELAP,WVDEP,NC
Dibenz (a,j) acridine	VELAP,WVDEP,NC
Dibenzofuran	VELAP,WVDEP,NC
Diethyl phthalate	VELAP,WVDEP,NC
Dimethyl phthalate	VELAP,WVDEP,NC
Di-n-butyl phthalate	VELAP,WVDEP,NC
Di-n-octyl phthalate	VELAP,WVDEP,NC
Diphenylamine	VELAP,WVDEP,NC
Ethyl methanesulfonate	VELAP,WVDEP,NC
Fluoranthene	VELAP,WVDEP,NC
Fluorene	VELAP,WVDEP,NC
Hexachlorobenzene	VELAP,WVDEP,NC
Hexachlorobutadiene	VELAP,WVDEP,NC



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Analyte	Certifications
Hexachlorocyclopentadiene	VELAP,WVDEP,NC
Hexachloroethane	VELAP,WVDEP,NC
Indeno (1,2,3-cd) pyrene	VELAP,WVDEP,NC
Isophorone	VELAP,WVDEP,NC
m+p-Cresols	VELAP,WVDEP,NC
Methyl methanesulfonate	VELAP,WVDEP,NC
Naphthalene	VELAP,WVDEP,NC
Nitrobenzene	VELAP,WVDEP,NC
n-Nitrosodimethylamine	VELAP,WVDEP,NC
n-Nitrosodi-n-butylamine	VELAP,WVDEP,NC
n-Nitrosodi-n-propylamine	VELAP,WVDEP,NC
n-Nitrosodiphenylamine	VELAP,WVDEP,NC
n-Nitrosopiperidine	VELAP,WVDEP,NC
o+m+p-Cresols	WVDEP,NC
o-Cresol	VELAP,WVDEP,NC
p-(Dimethylamino) azobenzene	VELAP,WVDEP,NC
p-Chloro-m-cresol	VELAP,WVDEP,NC
Pentachloronitrobenzene (quintozone)	VELAP,WVDEP,NC
Pentachlorophenol	VELAP,WVDEP,NC
Phenacetin	VELAP,WVDEP,NC
Phenanthrone	VELAP,WVDEP,NC
Phenol	VELAP,WVDEP,NC
Pronamide	VELAP,WVDEP,NC
Pyrene	VELAP,WVDEP,NC
Pyridine	VELAP,WVDEP,NC
SW8270D in Solids	
1,2,4,5-Tetrachlorobenzene	NC,VELAP,WVDEP
1,2,4-Trichlorobenzene	NC,VELAP,WVDEP
1,2-Dichlorobenzene	NC,VELAP,WVDEP
1,2-Diphenylhydrazine	NC,VELAP,WVDEP
1,3-Dichlorobenzene	NC,VELAP,WVDEP
1,4-Dichlorobenzene	NC,VELAP,WVDEP
1-Chloronaphthalene	NC,VELAP,WVDEP
1-Naphthylamine	NC,VELAP,WVDEP
2,3,4,6-Tetrachlorophenol	NC,VELAP,WVDEP
2,4,5-Trichlorophenol	NC,VELAP,WVDEP
2,4,6-Trichlorophenol	NC,VELAP,WVDEP



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Analyte	Certifications
2,4-Dichlorophenol	NC, VELAP, WVDEP
2,4-Dimethylphenol	NC, VELAP, WVDEP
2,4-Dinitrophenol	NC, VELAP, WVDEP
2,4-Dinitrotoluene	NC, VELAP, WVDEP
2,6-Dichlorophenol	NC, VELAP, WVDEP
2,6-Dinitrotoluene	NC, VELAP, WVDEP
2-Chloronaphthalene	NC, VELAP, WVDEP
2-Chlorophenol	NC, VELAP, WVDEP
2-Methylnaphthalene	NC, VELAP, WVDEP
2-Naphthylamine	NC, VELAP, WVDEP
2-Nitroaniline	NC, VELAP, WVDEP
2-Nitrophenol	NC, VELAP, WVDEP
3,3'-Dichlorobenzidine	NC, VELAP, WVDEP
3-Methylcholanthrene	NC, VELAP, WVDEP
3-Nitroaniline	NC, VELAP, WVDEP
4,6-Dinitro-2-methylphenol	NC, VELAP, WVDEP
4-Aminobiphenyl	NC, VELAP, WVDEP
4-Bromophenyl phenyl ether	NC, VELAP, WVDEP
4-Chloroaniline	NC, VELAP, WVDEP
4-Chlorophenyl phenyl ether	NC, VELAP, WVDEP
4-Nitroaniline	NC, VELAP, WVDEP
4-Nitrophenol	NC, VELAP, WVDEP
7,12-Dimethylbenz (a) anthracene	NC, VELAP, WVDEP
Acenaphthene	NC, VELAP, WVDEP
Acenaphthylene	NC, VELAP, WVDEP
Acetophenone	NC, VELAP, WVDEP
Aniline	NC, VELAP, WVDEP
Anthracene	NC, VELAP, WVDEP
Benzidine	NC, VELAP, WVDEP
Benzo (a) anthracene	NC, VELAP, WVDEP
Benzo (a) pyrene	NC, VELAP, WVDEP
Benzo (b) fluoranthene	NC, VELAP, WVDEP
Benzo (g,h,i) perylene	NC, VELAP, WVDEP
Benzo (k) fluoranthene	NC, VELAP, WVDEP
Benzoic acid	NC, VELAP, WVDEP
Benzyl alcohol	NC, VELAP, WVDEP
bis (2-Chloroethoxy) methane	NC, VELAP, WVDEP
bis (2-Chloroethyl) ether	NC, VELAP, WVDEP



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Analyte	Certifications
bis (2-Chloroisopropyl) ether	NC, VELAP, WVDEP
bis (2-Ethylhexyl) phthalate	NC, VELAP, WVDEP
Butyl benzyl phthalate	NC, VELAP, WVDEP
Chrysene	NC, VELAP, WVDEP
Dibenz (a,h) anthracene	NC, VELAP, WVDEP
Dibenz (a,j) acridine	NC, VELAP, WVDEP
Dibenzofuran	NC, VELAP, WVDEP
Diethyl phthalate	NC, VELAP, WVDEP
Dimethyl phthalate	NC, VELAP, WVDEP
Di-n-butyl phthalate	NC, VELAP, WVDEP
Di-n-octyl phthalate	NC, VELAP, WVDEP
Diphenylamine	NC, VELAP, WVDEP
Ethyl methanesulfonate	NC, VELAP, WVDEP
Fluoranthene	NC, VELAP, WVDEP
Fluorene	NC, VELAP, WVDEP
Hexachlorobenzene	NC, VELAP, WVDEP
Hexachlorobutadiene	NC, VELAP, WVDEP
Hexachlorocyclopentadiene	NC, VELAP, WVDEP
Hexachloroethane	NC, VELAP, WVDEP
Indeno (1,2,3-cd) pyrene	NC, VELAP, WVDEP
Isophorone	NC, VELAP, WVDEP
m+p-Cresols	NC, VELAP, WVDEP
Methyl methanesulfonate	NC, VELAP, WVDEP
Naphthalene	NC, VELAP, WVDEP
Nitrobenzene	NC, VELAP, WVDEP
n-Nitrosodimethylamine	NC, VELAP, WVDEP
n-Nitrosodi-n-butylamine	NC, VELAP, WVDEP
n-Nitrosodi-n-propylamine	NC, VELAP, WVDEP
n-Nitrosodiphenylamine	NC, VELAP, WVDEP
n-Nitrosopiperidine	NC, VELAP, WVDEP
o+m+p-Cresols	NC, VELAP, WVDEP
o-Cresol	NC, VELAP, WVDEP
p-(Dimethylamino) azobenzene	NC, VELAP, WVDEP
p-Chloro-m-cresol	NC, VELAP, WVDEP
Pentachloronitrobenzene (quintozone)	NC, WVDEP
Pentachlorophenol	NC, VELAP, WVDEP
Phenacetin	NC, VELAP, WVDEP
Phenanthrrene	NC, VELAP, WVDEP



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Analyte	Certifications
Phenol	NC,VELAP,WVDEP
Pronamide	NC,VELAP,WVDEP
Pyrene	NC,VELAP,WVDEP
Pyridine	NC,VELAP,WVDEP

Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2015
NC	North Carolina DENR	495	12/31/2015
VELAP	NELAC-Virginia Certificate #8074	460021	06/15/2016



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Summary of Data Qualifiers

- DS Surrogate concentration reflects a dilution factor.
- L LCS recovery is outside of established acceptance limits
- M Matrix spike recovery is outside established acceptance limits
- P Duplicate analysis does not meet the acceptance criteria for precision
- S Surrogate recovery was outside acceptance criteria
- RPD Relative Percent Difference
- Qual Qualifiers
- RE Denotes sample was re-analyzed
- D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
- TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.



**1941 REYMET ROAD
RICHMOND, VIRGINIA 23237
(804) 358-8295 PHONE
(804)358-8297 FAX**

**Chain of Custody
Form #: D1331
Rev. 1.0**

CHAIN OF CUSTODY

COMPANY NAME: Timmons Group	INVOICE TO: John Russell	PROJECT NAME/Quote #: Fulton Gas Works															
CONTACT: John Russell	INVOICE CONTACT:	SITE NAME:															
ADDRESS: 1001 Boulders Pkwy, Suite 300	INVOICE ADDRESS:	PROJECT NUMBER:															
PHONE #: 804.200.6427	INVOICE PHONE #:	P.O. #:															
FAX #: _____	EMAIL: john.russell@timmons.com	Pretreatment Program:															
Is sample for compliance reporting? YES <input checked="" type="checkbox"/> NO		Is sample from a chlorinated supply? YES <input checked="" type="checkbox"/> NO	PWS I.D. #:														
SAMPLER NAME (PRINT): Chase Farnsworth SAMPLER SIGNATURE: <i>Chase LV</i>			Turn Around Time: 5 Day(s)														
Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other										COMMENTS							
CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE)						
											S VOC	TPH - DR0	TPH - OR0	PCBs	PPL Metals	VOCs	
1) SB1	X			12/7/15	10:35				S	4							PLEASE NOTE PRESERVATIVE(S) INTERFERENCE CHECKS or PUMP RATE (L/min)
2) SB2	X				10:50				4								
3) SB3	X				11:25				3								
4) SB4	X				11:40				4								
5) SB6	X				12:45				2								
6) SB8	X				14:15				4								
7) SB9	X				14:40				4								
8) SB10	X				14:55				4								
9)																	
10)																	
RELINQUISHED: <i>Chase LV</i>	DATE / TIME: 12/8/15	RECEIVED: <i>Brian Hicks</i>		DATE / TIME: 12/8/15 1538		QC Data Package	LAB USE ONLY	COOLER TEMP 3.4 °C									
RELINQUISHED: DATE / TIME	RECEIVED: DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	Level I	<input type="checkbox"/>	15L0217									
RELINQUISHED: DATE / TIME	RECEIVED: DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	Level II	<input type="checkbox"/>	TG									
RELINQUISHED: DATE / TIME	RECEIVED: DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	Level III	<input type="checkbox"/>	Fulton Gasworks									
RELINQUISHED: DATE / TIME	RECEIVED: DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	Level IV	<input type="checkbox"/>	Recd: 12/08/2015 Due: 12/15/2015									



1941 REYMET ROAD
RICHMOND, VIRGINIA 23237
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Chain of Custody
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Effective: Feb 14, 2014

CHAIN OF CUSTODY

PAGE 2 OF 2

COMPANY NAME: Timmons Group	INVOICE TO: John Russell II	PROJECT NAME/Quote #: Fulton Gas Works
CONTACT: John Russell II	INVOICE CONTACT:	SITE NAME:
ADDRESS: 1001 Boulders Way, Suite 300	INVOICE ADDRESS:	PROJECT NUMBER:
PHONE #: 804-200-6427	INVOICE PHONE #:	P.O. #:
FAX #:	EMAIL: john.russell@timmons.com	Pretreatment Program:
Is sample for compliance reporting? YES <input checked="" type="checkbox"/> NO	Is sample from a chlorinated supply? YES <input checked="" type="checkbox"/>	PWS I.D. #:
SAMPLER NAME (PRINT): Chase Farnsworth SAMPLER SIGNATURE: <i>Chase Farnsworth</i>		Turn Around Time: 5 Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other _____

COMMENTS

Preservative Codes: N=Nitric Acid
C=Hydrochloric Acid S=Sulfuric Acid
H=Sodium Hydroxide A=Ascorbic Acid
Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE)						PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)
										SVOCs	DRC	ORG	PCBs	PPL Metals	VOCs	
1) SB 12	X			12/7/15	15:15			S	4	X	X	X				3 containers only
2) SB 11	X			12/8/15	9:45			S	4	X	X					
3) MW 1	X				11:00	CBP 11:30		GW	8	X	X					
4) MW 2	X				11:00			GW	8	X	X					
5) MW 3	X				12:00			GW	8	X						
6) MW 4	X				12:20			GW	8	X	X					Smelly
7) MW 5	X			12/8/15	11:50			GW	8	X	X					
8) MW1-Dup	X				11:45			GW	8	X	X					
9)																
10)																

RELINQUISHED: *Chase Farnsworth* DATE / TIME 12/8/15 RECEIVED: *Reichert* DATE / TIME 12/8/15 1538 QC Data Package LAB USE ONLY COOLER TEMP 3.4 °C

RELINQUISHED: DATE / TIME RECEIVED: DATE / TIME

RELINQUISHED: DATE / TIME RECEIVED: DATE / TIME

15L0217

TG
Fulton Gasworks

Recd: 12/08/2015 Due: 12/15/2015



1941 Reymet Road • Richmond, Virginia 23237 • Tel : (804) 358-8295

TG

15L0217

Fulton Gasworks

Recd: 12/08/2015 Due: 12/15/2015

v130325002

Opened by: (Initials)

TR

Lab ID No.:

Date Cooler Opened:

9 DEC 2015

YES NO N/A

1. How were samples received?
Fed Ex
UPS
Courier
Walk In
2. Were custody seals used?
3. If yes, are custody seals unbroken and intact at the date and time of arrival?
4. Are the custody papers filled out completely and correctly?
5. Do all bottle labels agree with custody papers?
7. Is the temperature blank or representative sample within acceptable limits?
(above freezing to 6°C)
8. If NO, are the samples just taken and received on ice?
9. Are all samples within holding time for requested laboratory tests?
10. Is a sufficient amount of sample provided to perform the tests indicated?
11. Are all samples in proper containers for the analyses requested?
12. Are all samples appropriately preserved for the analyses requested?
13. Are all volatile organic containers free of headspace?
14. Are all TOX containers free of headspace?
15. Is Trip blank provided with each VOC sample set? Circle applicable method:
(Document if trip blank is not received with the sample set)

EPA 8011 EPA 504 EPA 8260 EPA 624

RSK-175 EPA 8015 (GRO) EPA 8021

EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

ONLY TWO SAMPLE JARS WERE RECEIVED FOR SB10 AND NO TRIP
BLANK WAS RECEIVED; CHASE FARNSWORTH WAS NOTIFIED BY EMAIL. TR 9 DEC 2015

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____

Analyst initials: _____

1N NaOH ID: _____ or

5N NaOH ID: _____

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F1302 Sample Condition 6.xls



Order ID 15L0217

Sample Preservation Log

Sample Preservation Log
Form #: F1301
Rev # 4.0
Effective: Mar 13, 2015
Page 1 of 1

Date Performed: 9 Dec 2015

Analyst Performing Check: TH

P/A = Present/Absent

Sample ID	Container ID	Metals		Cyanide		Sulfide		Ammonia		TKN		Phos, Tot		NO3+NO2		DRO		Pesticide (8081/608)		SVOC (8270/625)				
		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received		pH as Received				
		pH adjust.	Final pH (if adjust.)	pH adjust.	Final pH (if adjust.)	pH adjust.	Final pH (if adjust.)	pH adjust.																
11	A																							
11	B																							
11	E	/																						
12	A																							
12	B																							
12	E	/																						
13	A																							
13	B																							
13	E	/																						
14	A																							
14	B																							
14	E	/																						
15	A																							
15	B																							
15	E	/																						

NaOH ID: _____

HCl ID: _____

H2SO4 ID: _____

HNO3 ID: _____

DRO-Wisconsin soil samples must be preserved with MeCl2 within 72 hours of sample collection - NOTIFY EXTRACTION DEPARTMENT.

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F1301 Sample Preservation Log 4.0.xls



Order ID 15L0217

Sample Preservation Log

Date Performed: 9 Dec 2015

Sample Preservation Log
Form #: F1301
Rev # 4.0
Effective: Mar 13, 2015
Page 1 of 1

Analyst Performing Check:

P/A = Present/Absent

NaOH ID: _____

HCL ID: _____

H₂SO₄ ID: _____

HNO₃ ID: _____

DRO-Wisconsin soil samples must be preserved with

72 hours of sample collection - NOTIFY EX

DRO-Wisconsin soil samples must be preserved with MeCl₂ within 72 hours of sample collection - NOTIFY EXTRACTION DEPARTMENT.

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F1301 Sample Preservation Log 4_0.xls