

Voluntary Remediation Program Fifth Semi-Annual Status Report

Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Richmond County, Georgia
HSI No. 10132
VRP Consent Order EPD-VRP-011

Prepared for:	Atlanta Gas Light Company Ten Peachtree PI NE, 17 th Floor, Atlanta, Georgia 30309
Date:	June 1, 2017
Prepared by:	Amec Foster Wheeler Environment & Infrastructure, Inc. 1075 Big Shanty Road NW, Suite 100, Kennesaw, Georgia 30144
Project No.:	6122140098

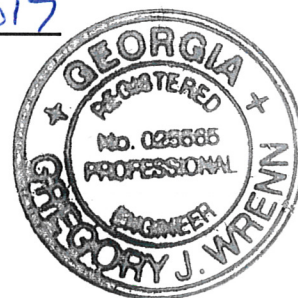
GROUNDWATER SCIENTIST CERTIFICATION

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enables me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction. Data contained herein gathered and reported by professionals other than Amec Foster Wheeler Environment & Infrastructure, Inc. are accepted as accurate and have been integrated into this report as such.



Greg Wrenn, P.E. (Georgia P.E. No. 035713)
Senior Environmental Engineer
Amec Foster Wheeler Environment & Infrastructure, Inc.

May 30, 2017
Date



Registered P.E.'s Mailing Address:
Amec Foster Wheeler Environment & Infrastructure, Inc.
1075 Big Shanty Road NW, Suite 100
Kennesaw, Georgia 30144

Registered P.E.'s Stamp:

TABLE OF CONTENTS

1.0	PROJECT SUMMARY	1-1
2.0	SITE ACTIVITIES.....	2-1
2.1	GROUNDWATER MONITORING	2-1
2.2	DESIGN	2-1
3.0	ADDITIONAL QUALIFYING PROPERTIES.....	3-1
4.0	CONCLUSIONS AND RECOMMENDATIONS	4-1
5.0	NEXT SUBMITTAL	5-1
6.0	REFERENCES.....	6-1

TABLES

Table 2-1	Monitoring Well Status
Table 2-2	Site Delineation and Cleanup Standards for Groundwater

FIGURES

Figure 1-1	Site Location Map
Figure 1-2	Parcel Block Map – City of Augusta
Figure 2-1	Monitoring Well Locations
Figure 2-2	Galliard Groundwater Approximate Extent of Dissolved Phase Impacts January 2017
Figure 2-3	Bedrock Groundwater Approximate Extent of Dissolved Phase Impacts January 2017
Figure 2-4	Wells to be Abandoned
Figure 2-5	Wells to be Monitored
Figure 3-1	Qualifying Properties
Figure 4-1	Updated Schedule for VRP Activities

APPENDICES

Appendix A	January 2017 CAER
Appendix B	AGLC Responses to EPD Comments Dated April 27, 2017
Appendix C	Registered Professional Supporting Documentation

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
ACA	Augusta Canal Authority
AGLC	Atlanta Gas Light Company
BPLM	By-Product-Like Material
COA	Certificate of Appropriateness
DNAPL	Dense Non-Aqueous Phase Liquid
DPT	Direct Push Technology
EPD	Georgia Environmental Protection Division
ISS	In-Situ Solidification
MGP	Manufactured Gas Plant
RRS	Risk Reduction Standards
USEPA	United States Environmental Protection Agency
VIRP	Voluntary Investigation and Remediation Plan
VRP	Georgia Voluntary Remediation Program

1.0 PROJECT SUMMARY

The former Augusta Manufactured Gas Plant (MGP) is located at the intersection of Walton Way and 8th Street in the City of Augusta, County of Richmond, Georgia (Figure 1-1). Atlanta Gas Light Company (AGLC), owns three parcels of land on which a MGP and ancillary facilities operated, which collectively occupy approximately 3.5 acres (Figure 1-2). These properties as well as those surrounding properties potentially impacted by the former MGP operations are collectively referred to as the “Augusta MGP Site” or the “Site” in this Status Report.

AGLC has performed a series of investigations and implemented numerous Georgia Environmental Protection Division (EPD) approved corrective actions and has addressed the MGP impacts in the unsaturated and saturated zone materials over large areas of the Site since the mid-1980s.

Excavation and in-situ solidification (ISS) operations were completed for the Northern Parcel and Car Wash areas during fall 2003. In 2004, soil removal (excavation) activities were completed at Blocks A, E, G, and H; 8th Street and Fenwick Street; and along five segments of the Third Level Canal (designated Reach D, Reach E, Reach F, Reach G, and Reach H). The excavation and ISS remedial activities within the Northern Parcel were documented in the August 9, 2005, *Northern Parcel Corrective Action Closure Report* prepared by MACTEC and approved by the Georgia Department of Natural Resources, Environmental Protection Division (EPD) on February 24, 2006.

In-situ chemical oxidation (ISCO) of the church area (Block E), along the 8th Street ROW, within the Gas Station parcel, and along the Walton Way ROW was completed in November 2005. A *Corrective Action Closure Report (CACR)* for these off-site areas (operable units [OU], OU-1 and OU-2) was submitted by MACTEC on January 16, 2009, and was approved by EPD in a letter dated March 30, 2009. A separate CACR was also prepared for the Third Level Canal (OU-3) following completion of remediation activities adjacent to the CSX Railroad property. The CACR for OU-3 was submitted by MACTEC on January 16, 2009, and approved by EPD in a letter dated March 30, 2009. A bedrock groundwater extraction and treatment system operated at the Site from November 2006 through June 2015. Groundwater was extracted from MW-307BR and MW-308BR, treated via activated carbon, and discharged to the publicly owned treatment works (POTW).

A supplemental bedrock investigation was performed by AECOM in July 2008 and included the installation of nine additional bedrock monitoring wells (MW-503BR, MW-504BR and MW-506BR through MW-512 BR). Results of this investigation are summarized in AECOM's *Bedrock Groundwater Investigation Report* dated February 19, 2009. All the installed bedrock monitoring wells were subsequently added to the monitoring network.

In correspondence dated March 6, 2009, AGLC responded to EPD's comments to the 4th Corrective Action Effectiveness Report (CAER) and provided a proposed approach and timeframe to develop a Site Conceptual Model (SCM) and conduct groundwater modeling (following approval by EPD of the SCM), and prepare a feasibility study (FS; following approval by EPD of the Ground Water Modeling Report) in order to address the Site as a whole and better define an effective path to closure. A draft SCM dated June 19, 2009, was submitted to EPD by Environmental Cost Management, Inc. (ECM) on behalf of AGLC. A revised SCM, addressing EPD comments dated August 3, 2009, was submitted by ECM on October 2, 2009. The revised SCM presented changes to the well network that were approved in EPD's August 3, 2009, letter. These changes to the

monitoring well network were incorporated into the current sampling event. A revised SCM was submitted to EPD on December 28, 2009, and approved by EPD in a letter dated March 19, 2010.

A supplemental data gap investigation was performed by ECM in October 2010 in accordance with the recommendations of the December 2009 SCM. The investigation included the installation of one additional bedrock monitoring well (MW-513BR), and the installation of four additional Galliard Formation monitoring wells (MW-600, MW-601, MW-602, and MW-603). In addition, one alluvium well (MW-04) and five Galliard Formation wells (MW-18, MW-201, MW-210, MW-305, and MW-407D) were decommissioned based on the recommendations of the EPD-approved SCM. In addition, MW-408D was abandoned and replaced with MW-408DR. Results of this investigation are summarized in ECM's *Data-Gap Investigation and Monitoring Well Installation/Decommissioning Report* dated February 14, 2011. The monitoring wells installed in 2010 are included in the current monitoring well network.

The results of the 2010 data gap investigation were incorporated in ECM's *Site Conceptual Model Addendum* (SCM Addendum) dated February 17, 2012. The SCM Addendum recommended an overall reduction to the monitoring well network, and the continued inclusion of bedrock monitoring wells MW-504BR and MW-510BR within the well network to monitor plume control. In a May 23, 2012 letter, the EPD approved a number of the reductions, including the abandonment of five wells (two Galliard: MW-23, MW-211 and three saprolite: MW-11, MW-312, and MW-314), and the elimination of sampling and/or gauging in a number of Discrete Depth Sampling Port (DDSP) wells. Well abandonment work was completed in July 2012, with the exception of MW-211, which was not abandoned due to access issues and will be abandoned during future activities. Ongoing groundwater monitoring reflects the revised monitoring well network, which was documented in Table 3-8 of ECM's June 22, 2012 response to the EPD's May 23, 2012 letter.

The *Ground Water Flow and Transport Model* report was submitted to the EPD by ECM on June 5, 2012. The EPD provided comments on June 29, 2012. In general, the comments discussed the need for inclusion of a sensitivity analysis and a detailed calibration of the model results to historical monitoring data. A response with the additional analysis was provided to the EPD on August 14, 2012. In accordance with the Site-wide approach developed in 2009, a FS was prepared based on the results of the SCM Addendum and the groundwater modeling. The FS was submitted to the EPD on December 13, 2012, and recommended excavation in Block C (D'Antignac Street), with monitored natural attenuation (MNA) in the street areas and Block E as access issues, utilities, and the presence of buildings limit effective implementation of a remedy. The FS also recommended discontinuing operation of the bedrock groundwater extraction system.

EPD provided comments to the FS in correspondence dated October 9, 2013, and required that actions be taken to address remaining source materials in all areas of the Site, including the street areas and Block E. Rather than submitting a revised FS, the EPD requested that the comments be addressed in a Revised Corrective Action Plan (RCAP). In subsequent meetings and correspondence with EPD, it was agreed that AGLC would submit a RCAP by August 29, 2014.

After further evaluation and coordination, AGLC and EPD agreed that the Augusta MGP Site was a candidate for enrollment in the VRP. AGLC received a letter from EPD concurring with entering the Augusta MGP Site into the VRP contingent on execution of a new Consent Order moving the Augusta MGP Site into the VRP as well as submittal of an acceptable VIRP in lieu of a RCAP by August 28, 2014, consistent with the original RCAP submittal deadline. Proposed Consent Order EPD-VRP-011 was transmitted by EPD to AGLC on June 27, 2014 for review and signature. AGLC signed the proposed Consent Order and transmitted back to EPD on July 22, 2014. The

public notice period for the proposed Consent Order EPD-VRP-011 closed on September 10, 2014. Additionally, to demonstrate AGLC's commitment to enrolling the Augusta MGP Site in the VRP, AGLC submitted an initial VRP Application Form and Checklist with associated VRP application fee on August 6, 2014.

On behalf of AGLC, AMEC submitted the VIRP to EPD on August 28, 2014. The VIRP provided the proposed remediation approach, schedule, and supporting documentation, and included an updated VRP Application form. The EPD approved the VRP application in a December 3, 2014 letter, which also set forth the required schedule for submittal of semiannual progress reports on June 1st and December 1st of each year, and additional requirements for the December 1, 2017 progress report. A second letter from EPD, also dated December 3, 2014, provided additional technical comments on the VIRP, which are to be addressed in subsequent progress reports.

2.0 SITE ACTIVITIES

Site activities completed during this reporting period are summarized in the following sections. Progress during this reporting period has been primarily focused on finalization of design, the contractor bid process, and preparing for remediation implementation. In addition, semiannual groundwater data was collected from existing wells, and the results of this sampling, as well as observations from the Continuing Action Monitoring Plan inspection, have been documented in a Corrective Action Effectiveness Report included as Appendix A. Responses to EPD's comment letter dated April 27, 2017 can be found in Appendix B.

2.1 GROUNDWATER MONITORING

Groundwater monitoring at the Site was performed in January 2017. The January 2017 Semi-Annual Corrective Action Effectiveness Report is included as Appendix A. Figure 2-1 presents the current monitoring well network at the Site. Approximate extents of dissolved phase impacts in the Galliard and Bedrock formations for January 2017 sampling are presented in Figures 2-2 and 2-3, respectively. Concentrations observed in monitoring wells and the extent of dissolved phase impacts are generally similar to previous sampling events.

MW-603 is no longer able to provide representative samples because of the dense non-aqueous phase liquid (DNAPL) coating the interior of the well. Because this well is encompassed by the expanded Type 5 footprint in the area of the Georgia Power vault, it is no longer necessary and is recommended to be abandoned.

Groundwater monitoring will continue semi-annually consistent with the current program until in-situ solidification (ISS) is initiated. Wells located within the ISS footprint will be abandoned to accommodate remediation activities. Wells identified for abandonment prior to remediation are identified in Table 2-1 and Figure 2-4. The wells planned for abandonment may be revised based upon the results of the forthcoming 100 percent design.

A modified program with a subset of existing monitoring wells will be sampled during ISS implementation to continue to evaluate groundwater quality. The wells planned for monitoring during ISS implementation are presented on Table 2-1 and Figure 2-5. After implementation of ISS is completed, localized groundwater flow above the saprolite will be altered by the solidified ISS mass. Additionally, permeability and leaching potential will be greatly reduced within the ISS mass footprint. For these reasons, locations of potential new/replacement wells will be identified after completion of ISS activities and after an evaluation of post ISS groundwater data from the retained wells has been completed.

2.2 DESIGN

The 60 percent remedial design was finalized as referenced in the 3rd semi-annual report to support implementation of the site-wide ISS remedy for the saturated zone source impacts. As reported in the previous semi-annual report submittals, AGLC considered alternative remediation technologies for Block E (Subarea 2) with the former church building remaining in place due to inquiries by stakeholders regarding the structure. Following an evaluation of the various remediation alternatives for Block E, AGLC determined that ISS is the remediation alternative that most closely aligns with the applicable regulatory requirements and AGLC's objectives to address source impacts in Block E. As stated in the opening paragraph, on August 2, 2016, AGLC

submitted a COA to demolish the former church building so that ISS remediation could proceed. However, on August 17, 2016, AGLC received a letter from the Augusta Canal Authority requesting the withdrawal of the COA to allow a newly-formed Community Group with interests in protecting and preserving the church additional time to determine if the building could be moved rather than demolished. After several meetings with the Community Group, AGLC withdrew the COA and has provided time for this Community Group a chance to raise funds and determine if they can move the building. In an effort to maintain schedules as presented to EPD, AGLC had asked this Group to have its evaluation performed and a decision reached by the end of April 2017. AGLC is still working with the Community Group to come to a final resolution. AGLC plans to resubmit the COA in July 2017 unless a viable option to relocate the church building is proposed by the Community Group in the interim. In parallel, AGLC has begun the Request for Proposal process with ISS contractors. AGLC is currently reviewing bids and will move forward with selecting the contractor to assist with completing the design and implementing the remedy. Updates to the remedial design and progress will be provided in the next semi-annual progress report.

3.0 ADDITIONAL QUALIFYING PROPERTIES

Documentation for qualifying parcels 229, 236, and 237 under the VRP was submitted to EPD in February 2017 and approved by EPD in the comment letter dated April 27, 2017. The properties previously qualifying for the VRP include parcels 108, 109, 143, 185, 186, 187, 188, 189, 225, 227, 228, 230, 231, 248, 327.2, 327.1, 328, 329, 330, 346, 374.1, and 764 owned by AGLC, parcels 229, 236, 237, 331, 332, 333, 335, 337, 338, 345, and 347 owned by Miracle Making Ministries (MMM), parcels 248, 330, and 339 owned by AGLC but leased by MMM, and Walton Way and 8th Street as shown on Figure 3-1.

All of these properties are either listed on the Georgia Hazardous Site Inventory or otherwise have a release of regulated substances into the environment. None of these properties are listed on the federal National Priorities List, are undergoing response activities required by an USEPA order, or are a facility required to have a permit under O.C.G.A 12-8-66. AGLC is the owner of these properties or has express permission of the owner to enroll the qualifying properties in the VRP. AGLC is exploring options to qualify the gas station parcels 374.2 and 375 under the VRP. Other potential qualifying properties will be addressed following remediation and subsequent groundwater monitoring.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the recent Site assessments and activities, we offer the following conclusions and recommendations:

- Groundwater will continue to be sampled semi-annually consistent with the current program until construction is initiated, at which time some wells will require abandonment. A modified program with a subset of existing wells will be sampled during ISS implementation to continue to evaluate groundwater quality.
- Locations of potential new/replacement wells will be identified after completion of remediation activities and after an evaluation of post ISS groundwater data from the subset of retained wells has been completed.
- Groundwater usage in the vicinity has not changed, and there does not appear to be a risk of exposure to impacted groundwater.
- The extent of BPLM in the vicinity of the Georgia Power vault at the Fenwick and 9th Street intersection is limited (horizontally and vertically), and this area will continue to be classified as a Type 5 RRS area. The Type 5 footprint will also encompass the recently defined extent of the BPLM in the area of the vault. MW-603, which is within the expanded Type 5 footprint, has DNAPL coating the interior of the well and is not usable for groundwater quality data, and is recommended for abandonment.
- The remediation schedule has been updated based on the current status of Site activities and is attached as Figure 4-1.
- Responses to EPD's comment letter dated April 27, 2017 are provided in Appendix B.

5.0 NEXT SUBMITTAL

As required by EPD, semi-annual progress reports must be submitted to EPD every June 1st and December 1st beginning in 2015 and ending in 2020, unless a compliance status report is submitted and approved prior to 2020. A report for the 6th semi-annual period will be submitted by December 1, 2017 and is planned to include the following activities:

- Semi-annual groundwater monitoring reporting
- Schedule update concerning construction
- Summary of corrective action

In addition, the December 3, 2014 EPD letter stated that the December 2017 VRP Semiannual Progress Report has special requirements and that the following must be included:

- Need for “demonstration of complete horizontal and vertical delineation”,
- Finalize the remediation plan, and
- Provide a cost estimate for implementation of remediation and associated continuing actions.

6.0 REFERENCES

- AMEC, 2014. *Voluntary Investigation and Remediation Plan, Atlanta Gas Light Company, Augusta, Georgia*. Prepared by AMEC Environment & Infrastructure, Inc., August 2014.
- Amec Foster Wheeler, 2015a. *Voluntary Remediation Program 1st Semi-Annual Status Report, Atlanta Gas Light Company, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., May 2015.
- Amec Foster Wheeler, 2015b. *Voluntary Remediation Program 2nd Semi-Annual Status Report, Atlanta Gas Light Company, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., December 2015.
- Amec Foster Wheeler, 2016. *Voluntary Remediation Program 3rd Semi-Annual Status Report, Atlanta Gas Light Company, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., June 2016.
- Amec Foster Wheeler, 2016. *Voluntary Remediation Program 4th Semi-Annual Status Report, Atlanta Gas Light Company, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., December 2016.
- RETEC, 2003. *Remedial Investigation – Sitewide (Augusta MGP Site, Third Level Canal and Off-Site Properties), Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by RETEC Group Inc., April 11, 2003.

TABLES

Table 2-1
Monitoring Well Status
Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Georgia

Well	Type	Planned for Abandonment	Monitored/Gauged During ISS Implementation
Alluvium Wells			
MW-05	II		Gauge
MW-17	II		Gauge
MW-306S	DDSP		Gauge
MW-401S	II	X	
MW-402S	II		Gauge
MW-408S	II		Gauge
MW-501S	II		Gauge
Galliard Wells			
MW-12	II		Gauge
MW-19	II		Gauge
MW-21	II		Gauge
MW-22	II		Gauge
MW-24	II		Gauge
MW-25	II		Gauge
MW-202DR	II	X	
MW-203	II		Gauge
MW-205	II	X	
MW-206	II		Gauge
MW-207	II		Gauge
MW-211	II	X	
MW-303	II		Gauge
MW-304	II		Gauge
MW-306D	DDSP		Gauge
MW-307D	DDSP		Abandoned
MW-309D	DDSP		Gauge
MW-310D	DDSP		Gauge
MW-401D	II	X	
MW-402D	II		Gauge
MW-404DR	II		Gauge
MW-408DR	II		Gauge
MW-502D	II	X	
MW-505D	II		Gauge
MW-600	II	X	
MW-601	II	X	
MW-602	II		Gauge
MW-603	II		Sample
MW-604	II	X	
MW-605	II	X	
MW-606	II	X	
MW-607	II		Gauge
Saprolite Wells			
MW-214	II		Gauge
MW-306SAP	DDSP		Gauge
MW-307SAP	DDSP		Abandoned

Table 2-1
Monitoring Well Status
Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Georgia

Well	Type	Planned for Abandonment	Monitored/Gauged During ISS Implementation
MW-309SAP	DDSP		Gauge
MW-310SAP	DDSP		Gauge
MW-311	II		Gauge
MW-317	II		Gauge
MW-401SAP	II	X	
MW-603SAP	II	X	
Bedrock and Transition Zone Wells			
MW-213	III	X	
MW-306BR	III		Sample
MW-306TZ	DDSP		Gauge
MW-307BR	III		Abandoned
MW-307TZ	DDSP		Abandoned
MW-308BR	III	X	
MW-309BR	III		Sample
MW-309TZ	DDSP		Gauge
MW-310BR	III		Sample
MW-310TZ	DDSP		Gauge
MW-313	III		Sample
MW-315	III		Sample
MW-316	III		Abandoned
MW-318	III		Sample
MW-319	III		Sample
MW-320	III		Sample
MW-321	III		Abandoned
MW-322	III		Abandoned
MW-323	III		Abandoned
MW-324	III		Abandoned
MW-325	III		Sample
MW-500BR	III		Sample
MW-503BR	III	X	
MW-504BR	III	X	
MW-506BR	III		Destroyed
MW-507BR	III		Sample
MW-508BR	III		Sample
MW-509BR	III	X	
MW-510BR	III	X	
MW-511BR	III	X	
MW-512BR	III	X	
MW-513BR	III		Sample

Notes:

DDSP - depth discrete sampling point

II - double cased well

III - triple cased well

Prepared by: LSM 10/30/2015

Checked by: ADB 11/2/2015

Table 2-2
Site Delineation and Cleanup Standards for Groundwater
Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Georgia

RRS	Delineation	Type 1	
	Background	Ingestion or Contact	Vapor Intrusion
Chemical	mg/L	ug/L	ug/L
BTEX			
Benzene		5	180
Ethylbenzene		700	476
Toluene		1000	487
Xylenes (total)		10000	--
VOCs			
1,1,2-Trichloroethane	DL	--	--
1,1-Dichloroethene	DL	--	--
1,2-Dichloroethane	DL	--	--
Acetone	DL	4000	--
Bromomethane	DL	--	--
Carbon disulfide	DL	4000	--
Chloroethane	DL	--	--
Chloroform	DL	--	--
Methylene chloride	DL	5	--
Styrene	DL	--	--
Tetrachloroethene	DL	--	--
Trichloroethene	DL	5	--
PAHs			
2-Methylnaphthalene	DL	--	--
Acenaphthene	DL	2000	--
Acenaphthylene	DL	10	--
Anthracene	DL	10	--
Benzo(a)anthracene	DL	0.1	--
Benzo(a)pyrene	DL	0.2	--
Benzo(b)fluoranthene	DL	0.2	--
Benzo(ghi)perylene	DL	10	--
Benzo(k)fluoranthene	DL	10	--
Chrysene	DL	0.2	--
Dibenzo(a,h)anthracene	DL	0.3	--
Dibenzofuran	DL	--	--
Fluoranthene	DL	1000	--
Fluorene	DL	1000	--
Indeno(1,2,3-cd)pyrene	DL	0.4	--
Naphthalene	DL	20	--
Phenanthrene	DL	10	--
Pyrene	DL	1000	--

Table 2-2
Site Delineation and Cleanup Standards for Groundwater
Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Georgia

RRS	Delineation	Type 1	
	Background	Ingestion or Contact	Vapor Intrusion
Chemical	mg/L	ug/L	ug/L
Phenolics			
2,4-Dimethylphenol		--	--
Phenol		--	--
Inorganics			
Antimony	DL	0.006	--
Arsenic	DL	0.01	--
Barium	0.46	2	--
Beryllium	DL	0.004	--
Cadmium	DL	0.005	--
Chromium III		--	--
Chromium VI	DL	0.1	--
Cobalt		--	--
Copper	DL	1.3	--
Cyanides+	0.04	0.2	--
Lead	DL	0.015	--
Mercury	DL	0.002	--
Nickel	0.1	0.1	--
Selenium	DL	0.05	--
Silver	DL	--	--
Thallium	DL	0.002	--
Vanadium		0.2	--
Zinc	DL	2	--

RRS - Risk Reduction Standards

DL - Detection Limit

NC - Not calculatable because toxicity values are not available

-- Not Applicable

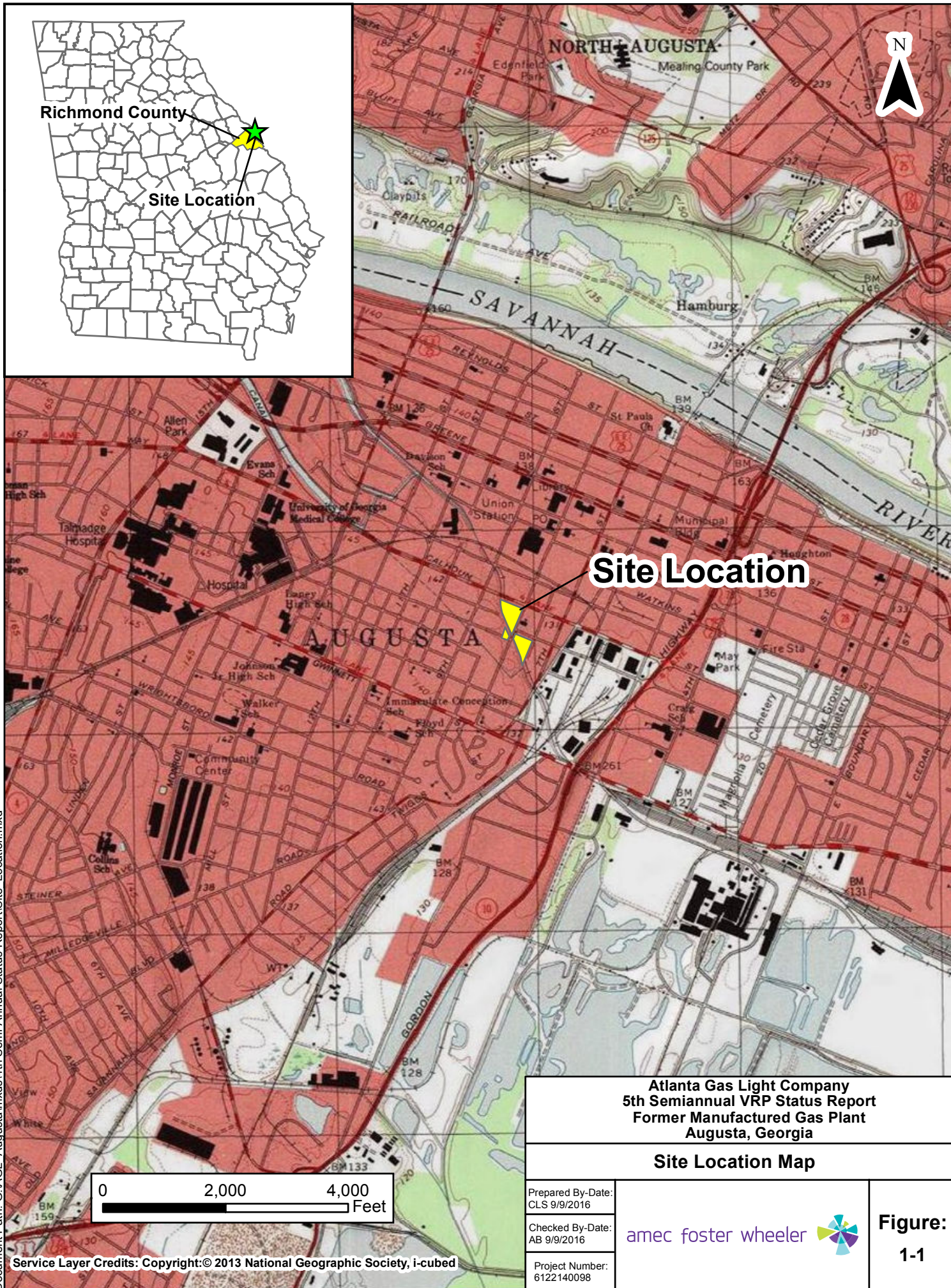
Notes:

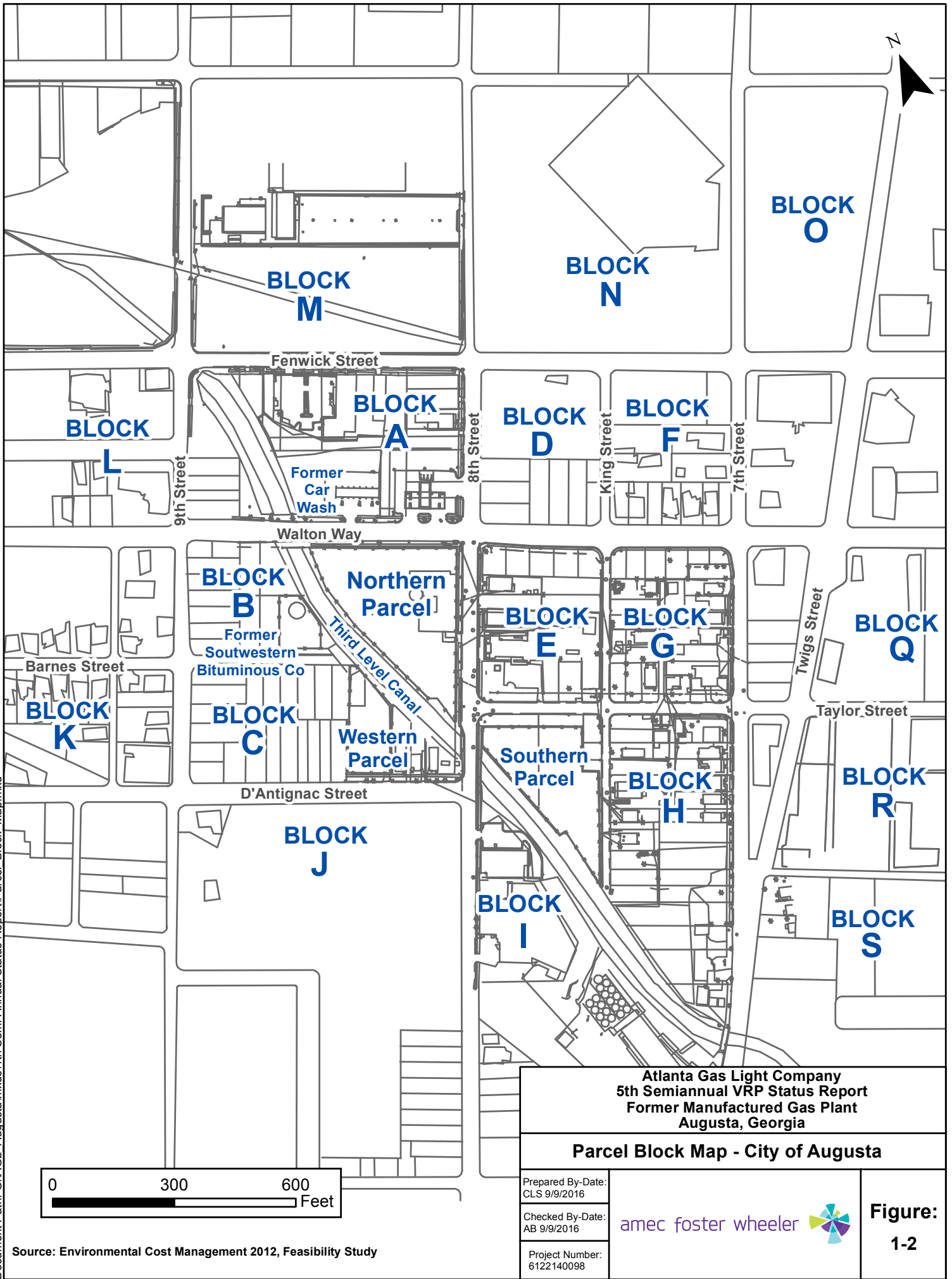
Delineation to upper background limits was completed for the Site as part of the EPD approved 2003 Remedial Investigation (RI) with details documented in Section 4.3 and Table 4-2 of the RI

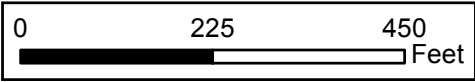
Prepared by: ADB 04/10/15

Checked by: RRY 04/13/15

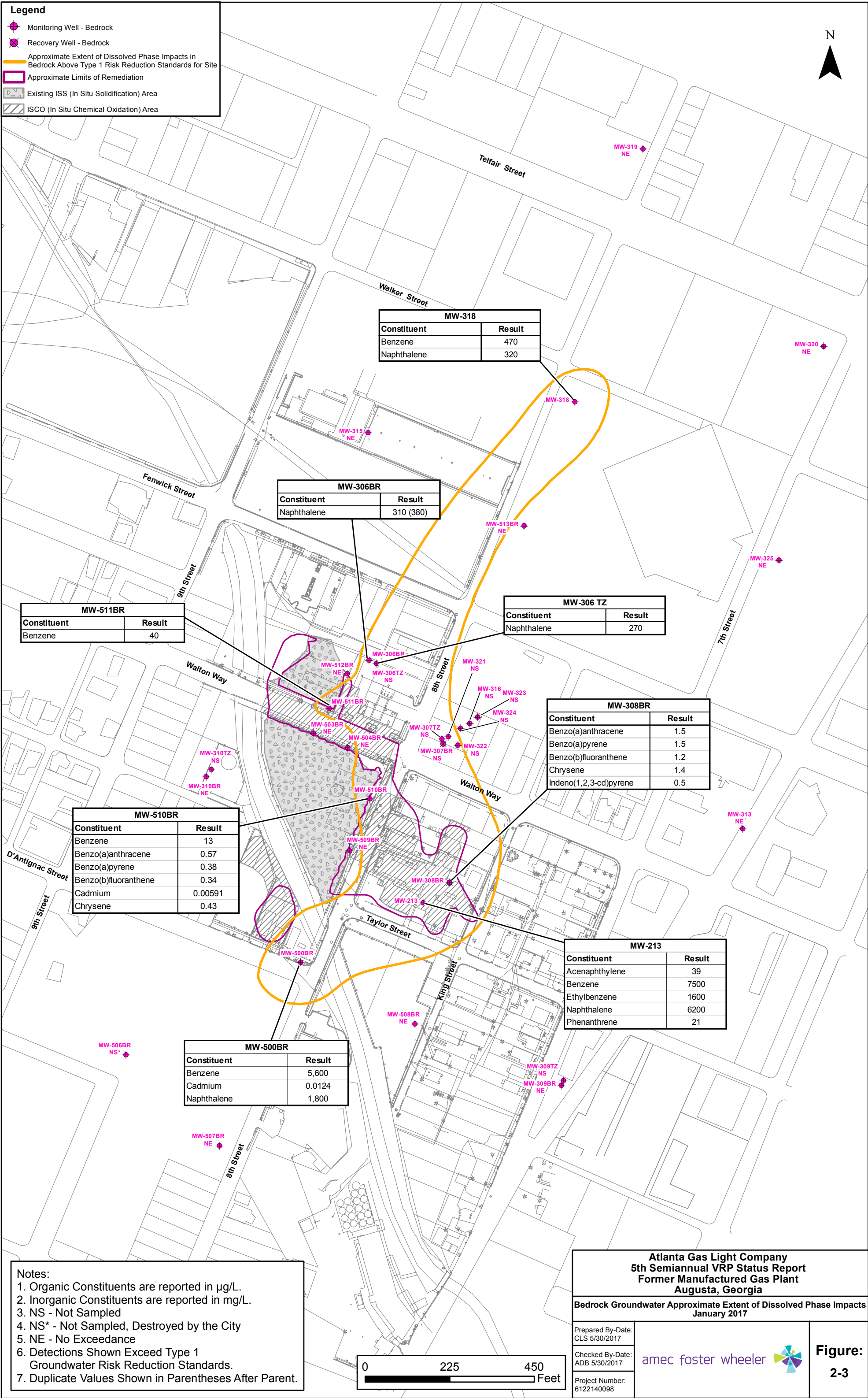
FIGURES

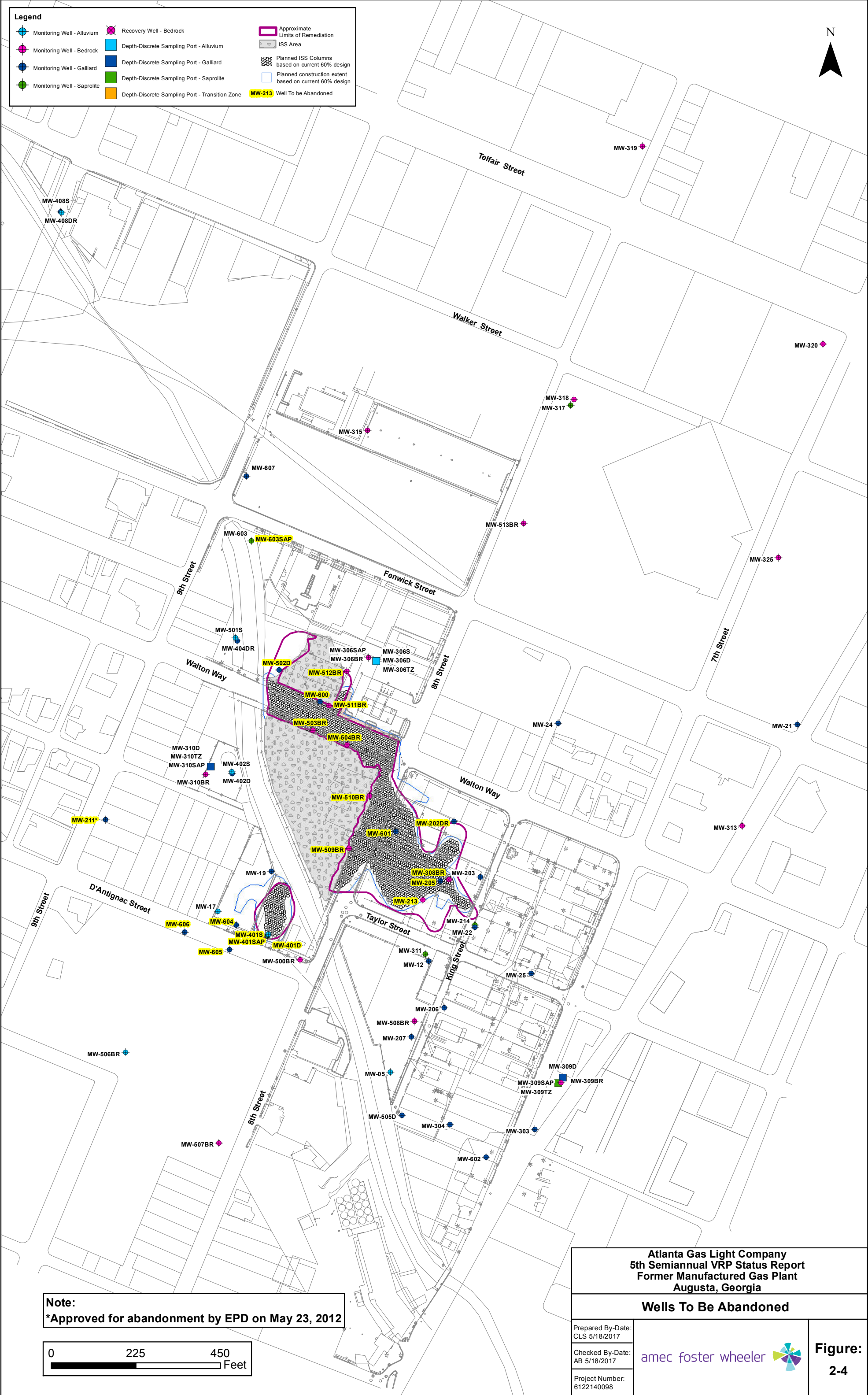






Document Path: G:\AGL_Augusta\mxds\5th_Semi_Annual_Report\mxds\Bedrock_GW_Extent_Dissolved_Phase_Impacts_Jan_2017.mxd





Monitoring Well - Alluvium

Monitoring Well - Bedrock

Monitoring Well - Galliard

Monitoring Well - Saprolite

Proposed Well - Bedrock

Recovery Well - Bedrock

Depth-Discrete Sampling Port - Alluvium

Depth-Discrete Sampling Port - Galliard

Depth-Discrete Sampling Port - Saprolite

Depth-Discrete Sampling Port - Transition Zone

Approximate Limits of Remediation

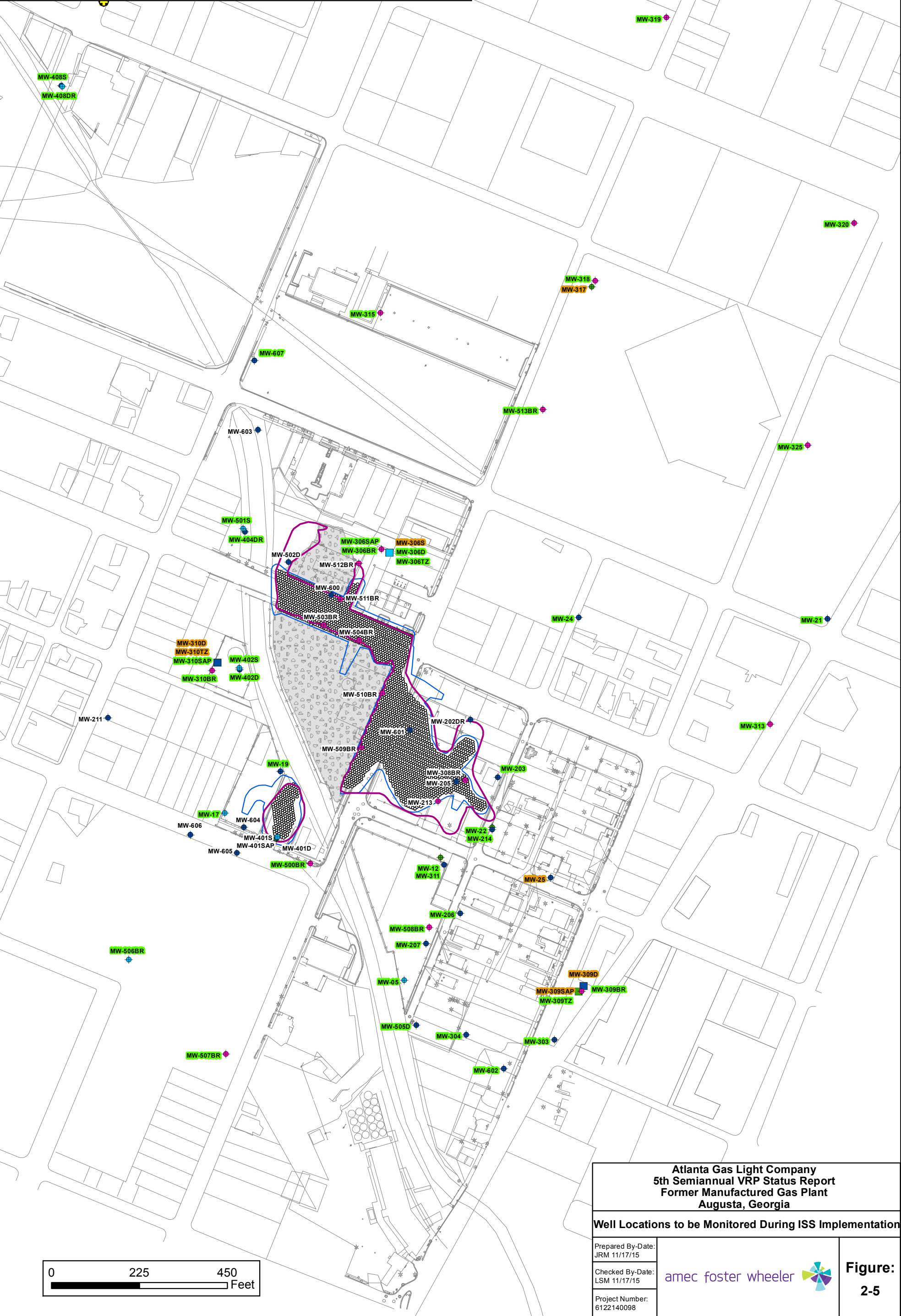
ISS Area

Planned ISS Columns based on current 60% design

Planned construction extent based on current 60% design

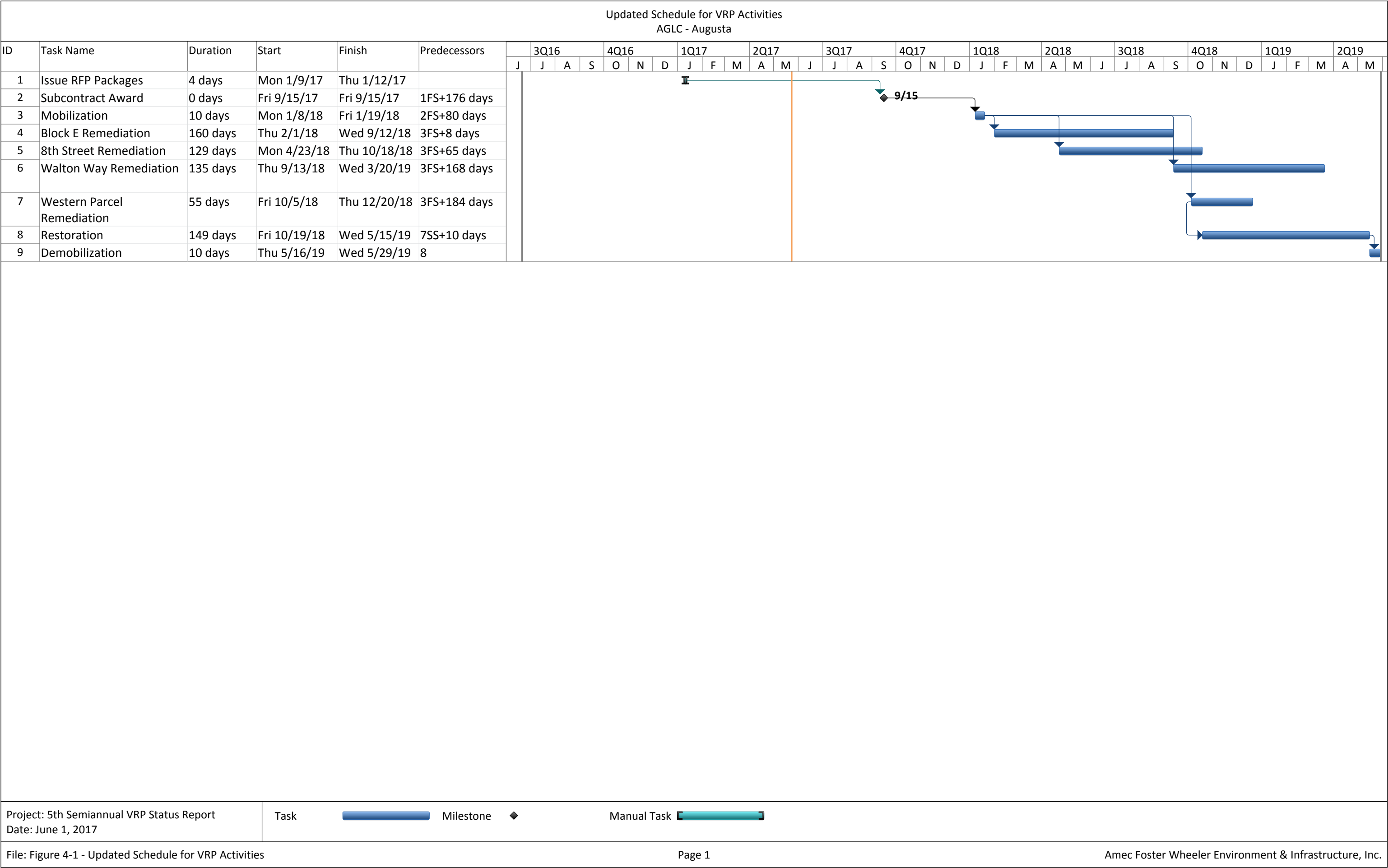
MW-205 Well To be Monitored During Implementation

MW-217 Well To be Gauged Only During Implementation



Notes:
AGLC Atlanta Gas Light Company
MMM Miracle Making Ministries





APPENDIX A

JANUARY 2017 CAER

Semi-Annual Corrective Action Effectiveness Report No. 21

January 2017 Groundwater Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Richmond County, Georgia
HSI No. 10132
VRP Consent Order EPD-VRP-011

Prepared for: Atlanta Gas Light Company

Date: May 31, 2017

Prepared by: Amec Foster Wheeler Environment & Infrastructure, Inc.
1075 Big Shanty Road NW, Suite 100, Kennesaw, Georgia 30144

Project No.: 6122150235

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1-1
2.0 BACKGROUND	2-1
2.1 GROUNDWATER MONITORING AND EVALUATION STUDIES	2-1
2.2 SCOPE OF WORK	2-1
2.2.1 Field Tasks	2-2
2.2.2 Reporting Tasks	2-2
2.3 GROUNDWATER MONITORING NETWORK	2-2
2.3.1 On-Site Wells Sampled	2-3
2.3.2 Off-Site Wells Sampled	2-3
2.4 GROUNDWATER SAMPLING AND ANALYSIS	2-3
2.5 QUALITY CONTROL/QUALITY ASSURANCE SAMPLES	2-4
2.6 MANAGEMENT OF INVESTIGATION WASTE	2-5
3.0 GROUNDWATER MONITORING RESULTS	3-1
3.1 GROUNDWATER FLOW AND ELEVATIONS	3-1
3.2 GROUNDWATER ANALYTICAL RESULTS	3-3
3.2.1 Alluvium	3-3
3.2.2 Galliard Formation	3-3
3.2.3 Saprolite	3-4
3.2.4 Transition Zone	3-5
3.2.5 Bedrock	3-5
3.3.4 Quality Assurance, Quality Control, and Data Validation	3-6
4.0 DATA COMPARISON AND SUMMARY	4-1
4.1 ALLUVIUM WELLS	4-1
4.2 GALLIARD WELLS	4-1
4.3 SAPROLITE WELLS	4-2
4.4 TRANSITION ZONE WELLS	4-2
4.5 BEDROCK WELLS	4-2
5.0 PERFORMANCE AND OPERATIONS OF BEDROCK GROUNDWATER EXTRACTION SYSTEM	5-1
6.0 CONCLUSIONS	6-1
7.0 REFERENCES	7-1

LIST OF TABLES

2-1	Monitoring Well Network Summary
2-2	Monitoring Well Construction Summary
2-3	Site-Specific Constituents of Interest
3-1	Depth to Water and Groundwater Elevations – January 23-25, 2017
3-2	Groundwater Analytical Results for Alluvium Wells
3-3	Groundwater Analytical Results for Galliard Formation Wells
3-4	Groundwater Analytical Results for Saprolite Wells
3-5	Groundwater Analytical Results for Transition Zone Wells
3-6	Groundwater Analytical Results for Bedrock Wells
3-7	Detections and RRS Exceedances in the Alluvium Wells
3-8	Detections and RRS Exceedances in the Galliard Formation Wells
3-9	Detections and RRS Exceedances in the Saprolite Wells
3-10	Detections and RRS Exceedances in the Transition Zone Wells
3-11	Detections and RRS Exceedances in the Bedrock Wells

LIST OF FIGURES

1-1	Site Location Map
2-1	Monitoring Well Locations
3-1	Groundwater Elevation Map for the Alluvium – January 23, 2017
3-2	Groundwater Elevation Map for the Galliard – January 23-25, 2017
3-3	Groundwater Elevation Map for the Saprolite – January 23, 2017
3-4	Groundwater Potential Map for the Bedrock and Transition Wells – January 23-24, 2017
3-5	Type I RRS Exceedances for the Alluvium Wells – January 2017
3-6	Type I RRS Exceedances for the Galliard Formation Wells – January 2017
3-7	Type I RRS Exceedances for the Saprolite Wells – January 2017
3-8	Type I RRS Exceedances for Bedrock and Transition Wells – January 2017
3-9	Benzene and Naphthalene Isoconcentration Map for the Galliard Formation – January 2017
3-10	Benzene and Naphthalene Isoconcentration Map for the Bedrock Formation and Transition Wells – January 2017

LIST OF APPENDICES

Appendix A	Groundwater Sampling Log Sheets
Appendix B	Laboratory Analytical Reports
Appendix C	Seepage Velocity Calculations
Appendix D	Analytical Data Validation Checklist
Appendix E-1	Summary of Historical Groundwater Sampling Data – Alluvium, Galliard, and Saprolite Monitoring Wells
Appendix E-2	Summary of Historical Groundwater Sampling Data – Transition Zone and Bedrock Monitoring Wells
Appendix E-3	Summary of Historical Groundwater Sampling Data – Decommissioned Monitoring Wells
Appendix F	Concentration Trend Graphs
Appendix G	Mass Removal Trend Graphs
Appendix H	Continuing Action Monitoring Plan Inspection
Appendix I	Investigation Waste Non-Hazardous Waste Manifest

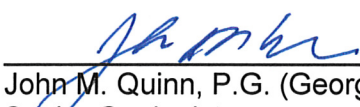
ACRONYMS/ABBREVIATIONS

Acronym/Abbreviation	Meaning
AES	Analytical Environmental Services
AGLC	Atlanta Gas Light Company
Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
CACR	Corrective Action Closure Report
CAER	Correction Action Effectiveness Report
CAP	Corrective Action Plan
COI	Constituent of Interest
DDSP	Discrete Depth Sampling Port
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
ECM	Environmental Cost Management, Inc.
EPD	Environmental Protection Division
ISCO	In-Situ Chemical Oxidation
ISS	In-Situ Solidification
µG/L	Micrograms per Liter
MG/L	Milligrams per Liter
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
MS/MSD	Matrix Spike/Matrix Spike Duplicate
O&M	Operation and Maintenance
ORP	Oxidation Reduction Potential
QA/QC	Quality Assurance/Quality Control
RCAP	Revised Corrective Action Plan
ROW	Right-of-Ways
RPD	Relative Percent Difference
RRS	Risk Reduction Standards
SCM	Site Conceptual Model
SVOC	Semi-Volatile Organic Compound
TCE	Trichloroethylene
ThermoRetec	ThermoRetec Consulting Corporation
USEPA	United States Environmental Protection Agency
VIRP	Voluntary Investigation and Remediation Plan
VOC	Volatile Organic Compound
VRP	Voluntary Remediation Program

PROFESSIONAL CERTIFICATION PAGE

21st SEMIANNUAL CORRECTIVE ACTION EFFECTIVENESS REPORT -
JANUARY 2017 GROUNDWATER MONITORING EVENT
ATLANTA GAS LIGHT COMPANY
FORMER MANUFACTURED GAS PLANT SITE
AUGUSTA, RICHMOND COUNTY, GEORGIA
HSI No. 10132

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enables me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction. Data contained herein gathered and reported by professionals other than Amec Foster Wheeler Environment & Infrastructure, Inc. are accepted as accurate and have been integrated into this report as such.



John M. Quinn, P.G. (Georgia PG No. 878)
Senior Geologist
Amec Foster Wheeler Environment & Infrastructure, Inc.

May 26, 2017
Date

Registered P.G.'s Mailing Address:
Amec Foster Wheeler Environment & Infrastructure, Inc.
1075 Big Shanty Road NW, Suite 100
Kennesaw, Georgia 30144

Registered P.G.'s Stamp:



1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared this Semi-Annual Corrective Action Effectiveness Report (CAER) No. 21 on behalf of Atlanta Gas Light Company (AGLC). This report summarizes the results of the groundwater monitoring event performed in January 2017 at the former manufactured gas plant (MGP) Site in Augusta, Georgia (the Site).

The “Site” includes property owned by AGLC and formerly used for MGP operations, property owned by AGLC not used for MGP operations, surrounding and nearby parcels not owned by AGLC, a portion of the Third Level Canal, and city right-of-ways (ROW). The Site is divided between the “on-site” areas for the AGLC property where former MGP operations were located (i.e., Northern Parcel, Southern Parcel, Western Parcel, and Southeastern Bituminous Parcel) and the “off-site” areas for properties that were not part of the former MGP operations. The Site layout and location map (Figure 1-1) shows the setting of the AGLC property within the city of Augusta, Richmond County, Georgia.

The purpose of this report is to:

- Fulfill requirements of Consent Order Environmental Protection Division (EPD)-Voluntary Remediation Program (VRP)-011 issued December 3, 2014;
- Fulfill requirements of the approved Voluntary Investigation and Remediation Plan (VIRP), in which AGLC proposed to continue semiannual groundwater monitoring as presented in Appendix F of the VIRP, with the exception that AGLC has discontinued sample collection of monitored natural attenuation (MNA) parameters until the corrective actions performed under the VRP have been completed;
- Monitor changes in groundwater constituent-of-interest (COI) concentrations to evaluate groundwater quality; and
- Confirm the continued stability of Galliard and bedrock groundwater plume extents.

2.0 BACKGROUND

AGLC has performed a series of investigations and implemented numerous Georgia Environmental Protection Division (EPD) approved corrective actions and has addressed the MGP impacts in the unsaturated and saturated zone materials over large areas of the Site since the mid-1980s. Ongoing groundwater monitoring reflects the revised monitoring well network as documented in Table 3-8 of Environmental Cost Management, Inc.'s (ECM's) June 22, 2012 response to the EPD's May 23, 2012 letter.

Monitoring wells located on the Georgia Power property on Block D required abandonment to accommodate scheduled construction activities for the expansion of the Fenwick Street Substation. The wells abandoned were Discrete Depth Sampling Port (DDSP) well MW-307 (comprised of MW-307D, MW-307SAP and MW-307TZ), MW-307BR, MW-316, MW-321, MW-322, MW-323 and MW-324. Well abandonment activities on Block D were completed August 31 through September 2, 2015. A summary of the well abandonment activities was included in Appendix C of the 2nd Semiannual VRP Status Report.

Additional monitoring wells to address delineation of Galliard groundwater impacts were installed from October 19 through October 21, 2015 consistent with the planned additional investigation presented in the 1st Semiannual VRP Status Report. To better understand trichloroethylene (TCE) detections observed in MW-401D on the Western Parcel, Galliard monitoring wells MW-604 through MW-606 were installed upgradient of MW-401D. Galliard monitoring well MW-607 was installed north of the Fenwick Street/9th Street intersection for delineation of Site COIs north of MW-603. These wells were sampled in November 2015 and the final results of this sampling are included in the 3rd Semiannual VRP Status Report.

An additional monitoring well (MW-603SAP) was installed on July 27, 2016 in order to vertically delineate the Galliard zone north of MW-603, as required in the December 3, 2014 letter from the EPD. The well was sampled on August 10, 2016 and the results of the sampling were included in the 4th Semiannual VRP Status Report. Groundwater sampling events conducted between 2001 and 2006 were summarized in previous semiannual groundwater monitoring reports. Groundwater sampling events conducted after completion of corrective actions described above from 2007 through the present have been summarized in CAERs.

2.1 GROUNDWATER MONITORING AND EVALUATION STUDIES

This semi-annual corrective action effectiveness groundwater monitoring and evaluation event was conducted in accordance with the the approved VIRP, in which AGLC proposed to continue semiannual groundwater monitoring as presented in Appendix F of the VIRP, with the exception that AGLC has discontinued sample collection of MNA parameters until the corrective actions performed under the VRP have been completed. The sampling event conducted in January 2017 was the 21st groundwater sampling event in the post-ISCO monitoring period as outlined in the revised *Basis of Design Work Plan* (LAW, 2002).

This section of the report describes procedures used for groundwater gauging, sampling, chemical analysis, quality assurance/quality control (QA/QC), and management of investigation-derived waste. Groundwater samples were collected using low-flow methods with peristaltic pumps.

2.2 SCOPE OF WORK

The 21st semi-annual corrective action effectiveness groundwater sampling event included the following field and reporting tasks:

2.2.1 Field Tasks

- Gauge groundwater levels.
- Sample groundwater.
- Manage investigation-derived waste.

2.2.2 Reporting Tasks

- Prepare groundwater elevation maps for the alluvium, Galliard, and saprolite units.
- Prepare groundwater potentiometric surface contour lines within the bedrock and transition units.
- Prepare summary tables of laboratory analytical results for COI.
- Evaluate analytical results relative to Type 1 Risk Reduction Standards (RRS).
- Prepare maps showing Type 1 RRS exceedances, if present, for COI in alluvium, Galliard formation, saprolite, and transition zone/bedrock.
- Prepare benzene and naphthalene isoconcentration maps for the Galliard Formation and bedrock.

2.3 GROUNDWATER MONITORING NETWORK

The list of wells selected for semiannual corrective action monitoring and evaluation was submitted to the EPD on July 8, 2001, along with the rationale for their inclusion. As noted earlier, the bedrock monitoring wells installed in July 2008 were included in the January 2017 sampling event.

As indicated in ERM's November 14, 2008 response to EPD, long-term inclusion of these wells in the monitoring network was evaluated based on the sampling results. In addition, the four Galliard monitoring wells and one bedrock monitoring well installed in October 2010 were included in this sampling event. Further modifications to the monitoring well network were proposed in the February 2012 *Site Conceptual Model (SCM) Addendum*. Most of these modifications were approved by the EPD in correspondence dated May 23, 2012. The revised monitoring well network was documented in Table 3-8 of ECM's June 22, 2012 response to the EPD. The current status of each active monitoring network well is listed in Table 2-1, and the locations of the existing monitoring wells are shown on Figure 2-1. The well list has been revised to reflect the comments in EPD's May 23, 2012 correspondence regarding the SCM Addendum.

Sixty monitoring wells were included in the sampling network during the January 2017 sampling event (Table 2-1). One monitoring well has been destroyed by activities associated with City of Augusta contractors (MW-506BR). MW-506BR was paved over during improvements to Dyess Park and is no longer accessible for sampling. The protective cover at MW-05 was destroyed during work conducted by the City of Augusta Canal Authority during construction of the Canal Trail. While the protective cover has subsequently been repaired, an obstruction was encountered in the well during the January 2017 sampling event, and MW-05 was not sampled. In addition, two monitoring wells were not sampled due to the presence of dense non-aqueous phase liquid (DNAPL) observed during gauging (MW-502D and MW-603). Also, five monitoring wells included in the sampling network (MW-307D, MW-307SAP, MW-307BR, MW-321, and MW-324) were abandoned in August and September 2015 to accommodate the Georgia Power substation expansion. As a result, groundwater samples were collected from fifty-two monitoring wells in January 2017. This number includes a sample obtained from Gaillard monitoring well MW-607, installed north of the Fenwick Street/9th Street intersection for delineation of Site COIs north of MW-603, which may not be sampled in future events as it is not part of the monitoring well network. A summary of well construction information is included as Table 2-2.

2.3.1 On-Site Wells Sampled

The following on-site wells were sampled in January 2017:

MW-12	MW-19	MW-202DR	MW-203	MW-205
MW-207	MW-213	MW-308BR	MW-310SAP	MW-310BR
MW-311	MW-402S	MW-402D	MW-508BR	MW-601

- The protective cover at MW-05 was destroyed by the City of Augusta Canal Authority during construction of the Canal Trail, and was subsequently repaired. However, an obstruction was encountered in the well during the January 2017 sampling event, and MW-05 was not sampled.

2.3.2 Off-Site Wells Sampled

Off-site monitoring wells sampled (or reasons for not sampling) in January 2017 include the following:

- City of Augusta ROW: MW-21, MW-22, MW-206, MW-214, MW-313, MW-408DR, MW-408S, MW-500BR, MW-503BR, MW-504BR, MW-507BR, MW-509BR, MW-510BR, MW-513BR, and MW-607
- Augusta Civic Center Authority: MW-318, MW-320, and MW-325
- AGLC owned and/or leased to Miracle Making Ministries: MW-401S, MW-401D, MW-401SAP, MW-404DR, MW-501S, MW-505D, and MW-602
- Miracle Making Ministries: MW-304
- Amoco: MW-306D, MW-306SAP, MW-306TZ, MW-306BR, MW-511BR, MW-512BR, and MW-600
- Joseph Norris: MW-303 and MW-309BR
- The Catholic Church of the Most Holy Trinity: MW-319
- United States Post Office: MW-315
- MW-502D and MW-603 were not sampled due to dense non-aqueous phase liquid (DNAPL) observed in the well during gauging.
- MW-506BR has been paved over (destroyed) by the City of Augusta sometime between July 2012 and January 2013. As such, MW-506BR has not been sampled since July 2012.

2.4 GROUNDWATER SAMPLING AND ANALYSIS

During the initial groundwater gauging task, the condition of each well was noted, including the concrete surface seal, outer casing, inner expandable well cap, and lock. Damage to the well vault lids and locking caps were previously noted for MW-408S and MW-408DR; AGLC contacted the Canal Authority regarding this damage and repairs were completed prior to the January 2017 sampling event. Prior to sampling, all wells were gauged with an oil-water interface meter for depth to water and presence and thickness of DNAPL, if observed.

Due to the historical detections of DNAPL at MW-205, MW-502D, MW-600 and MW-603, care was taken to prevent possible cross contamination. A dedicated interface probe was dropped to the bottom of these wells as part of the groundwater gauging event to assess whether DNAPL was present. DNAPL was observed on the interface probe at well MW-502D (no detection by probe)

and 0.16 foot of DNAPL thickness was measured within the well column of MW-603. Due to the detections of DNAPL, MW-502D and MW-603 were not sampled.

Before groundwater samples were collected, each well was purged in accordance with Amec Foster Wheeler's standard operating procedures, which are based on technical guidelines from U.S. Environmental Protection Agency Region 4 Science and Ecosystem Support Division (SESD) Operating Procedure SESDPROC-301-R3 (USEPA, 2013). The monitoring wells were purged using low-flow/low-volume techniques, with the exception that those wells experiencing excessive drawdown (>0.3 feet) were purged either by removing a minimum of three well volumes or until the well ran dry, or, if the removal of three well volumes was infeasible due to the generation of excessive quantities of purge water, then the wells were purged using low-flow/low-volume techniques, with documentation of the stability of field parameter values. Use of this method is in accordance with SESDPROC-301-R3, which allows the use of alternate methods that reduce the amount of purge water to be removed before sampling where it is determined that excessive quantities of investigation-derived waste (IDW) would be generated (USEPA, 2013).

In addition, the DDSP wells were purged by removing a minimum of three volumes, or until dry, because the small diameter of the well prevents simultaneous monitoring of the depth to water. The purpose of purging the well is to draw fresh formation water into the well so that the samples are representative of the portion of the aquifer surrounding the well. If a well was completely evacuated during purging, it was allowed to recharge and the groundwater sample was collected immediately after the well had recharged.

Field documentation of groundwater quality measurements included pH, conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity. Field parameter values and corresponding purge volumes were recorded on groundwater sampling forms. Copies of these forms for the January 2017 sampling event are included in Appendix A.

Groundwater samples were analyzed for the COI list (Table 2-3) as referenced in the CAP and in Appendix F of the VIRP. As stated in the 17th CAER, AGLC has discontinued sample collection of MNA parameters until the corrective actions performed under the VRP have been completed, and the MNA parameters have been removed from Table 2-3. Analytical Environmental Services (AES) laboratory performed the analytical services. Laboratory analytical reports are provided in Appendix B.

2.5 QUALITY CONTROL/QUALITY ASSURANCE SAMPLES

Field QC samples were collected and analyzed to document the accuracy and precision of the laboratory. QC samples included:

- **Trip Blanks.** Trip blanks were associated with each cooler containing VOC samples sent to the laboratory, with the exception that no trip blank was associated with the sample from MW-308BR. Trip blanks were analyzed to determine if any contaminants were introduced while samples were stored or while in transit to the laboratory. Trip blanks were analyzed for VOCs only.
- **Field Duplicates.** Six field duplicates were collected, one from each of the following wells: MW-12, MW-19, MW-306BR, MW-401S, MW-501S, and MW-600. All duplicate samples were analyzed for COI. Duplicates were collected to evaluate the precision of groundwater sample analysis and the variability of collection procedures.
- **Matrix Spikes and Matrix Spike Duplicates.** A total of three Matrix Spike and Matrix Spike Duplicate (MS/MSD) sample sets were collected from MW-320, MW-507BR, and MW-513BR as part of the laboratory analytical batch QC.

2.6 MANAGEMENT OF INVESTIGATION WASTE

All purge water from sampling activities was drummed and sampled for characterization prior to ultimate disposal. Personal protective equipment and other trash was placed in bags and deposited in solid waste containers. The purge water from the January 2017 sampling activities was picked up on May 11, 2017 by Cascade Environmental for disposal as non-regulated material. The non-hazardous waste manifest is provided in Appendix I. The investigation waste picked up on May 11, 2017 also included non-regulated material from additional investigation activities on the gas station property.

3.0 GROUNDWATER MONITORING RESULTS

This section summarizes results of the January 2017 corrective action monitoring and evaluation event, including groundwater flow and elevations, analytical results, QA/QC, and data validation.

3.1 GROUNDWATER FLOW AND ELEVATIONS

During the January 2017 sampling event, all groundwater wells were inspected and the groundwater levels were gauged and recorded, as applicable. Groundwater elevation data derived from water level measurements collected in January 2017 is presented in Table 3-1. With the exception of porosity for the bedrock hydrogeologic unit, seepage velocity calculations in each unit are based on hydraulic conductivity estimates provided in the 2009 Site Conceptual Model, average specific yield values published in U.S. Geological Survey Water Supply Paper 1662-D (Johnson, 1967), and January 2017 horizontal hydraulic gradients calculated by solving three-point problems for wells screened in each unit. For the bedrock hydrogeologic unit, the porosity range is taken from published literature values (Fetter, 2001). Parameters (and sources, where applicable) used to calculate seepage velocity in each hydrogeologic unit and the resultant seepage velocity are summarized in Appendix C.

The groundwater pump and treatment system was shut off for a carbon changeout December 29, 2014. During restart of the system on January 30, 2015, the groundwater pump in MW-308BR was found to be damaged. The system then was operated with the use of MW-307BR only until MW-307BR ceased pumping in June 2015 due to mechanical issues. MW-307BR was subsequently abandoned in August-September 2015 due to scheduled construction activities in Block D. As the treatment system has remained off since June 2015, the January 2017 groundwater flow and directions are indicative of ambient (non-pumping) conditions.

The ISS masses have created an obstacle to groundwater flow on the Northern Parcel and on the former Car Wash property since the hydraulic conductivity of each mass is several orders of magnitude lower than that of the surrounding alluvium in those portions of the shallow aquifer. The lower hydraulic conductivity of each mass (ranging from 10^{-9} to 10^{-7} centimeters per second) causes increased groundwater flow in the more permeable alluvium. Because groundwater cannot effectively flow through the ISS mass, shallow groundwater flow is directed around the mass and no groundwater elevation contours are associated with this area in the alluvium or Galliard zones.

Prior to soil remediation and ISS, groundwater flow in both the alluvium and Galliard Formation was generally in an easterly direction, with the exception of seasonal conditions in the unconfined alluvium aquifer, which sometimes reversed the direction of flow into the Third Level Canal. The estimated direction of alluvium groundwater in January 2017 was toward the Northern Parcel from the north (MW-501S) and southwest (MW-17 and MW-401S). (Figure 3-1). While the contours shown on Figure 3-1 are interpolated from current data, it is difficult to determine the exact flow pattern in the alluvium due to the small number of alluvial wells on Site. However, a few additional alluvial wells will be installed to monitor post-remediation conditions once the next phase of ISS is complete. Seepage velocity in alluvial groundwater is estimated to be 2.5×10^{-1} ft/day.

The general post-ISS local flow pattern in the Galliard Formation has been an easterly flow on the eastern side of the ISS masses, with a steeper groundwater gradient along the western boundary of the canal (west of the Northern Parcel) with a zone of nearly flat gradient east of the Northern Parcel. During the January 2017 monitoring event, west of the canal, groundwater flow appears to have been generally towards the west-southwest, with localized flow to the southwest and northwest to the west of the Southern Parcel (with MW-401D as a low) and to the southwest to the

east of the Southern Parcel, with MW-207 as a groundwater high (similar to historical data). East of the canal, groundwater flow was generally to the east, toward the Savannah River (Figure 3-2). This is similar to the pattern observed during historical groundwater monitoring events, where localized mounding occurred near the ISS masses around the Site and groundwater flowed radially outward. Groundwater flow in the Galliard unit is influenced by the extremely low hydraulic conductivity of the ISS mass in the Northern Parcel and former Car Wash area, which causes groundwater downgradient (east) of the ISS masses in the Northern Parcel to form a near-stagnant zone of very low gradient. Groundwater flow is complex in the immediate vicinity of the ISS masses, leading to some variability in localized groundwater flow patterns from event to event. Seepage velocity in Galliard groundwater outside the ISS masses is estimated to range from 6.1×10^{-3} to 3.1×10^{-2} ft/day.

The January 2017 groundwater elevation data for the saprolite unit indicates groundwater flow trends northeast and southwest from MW-306SAP (Figure 3-3). Any groundwater flow in saprolite (or bedrock) interpreted near or adjacent to the ISS mass is assumed to flow under the mass. Groundwater flow is possible in the saprolite unit since ISS was keyed only into the top of saprolite and not completed through the entire vertical extent of the unit. Seepage velocity in saprolite groundwater is estimated to be 1.4×10^{-3} ft/day.

The bedrock aquifer is a crystalline-rock aquifer that exhibits very high interconnectivity of the fracture sets and foliation planes to such a degree that groundwater flow simulates an anisotropic porous medium; however, the aquifer is still not considered a homogenous medium. Hydraulic potential lines, rather than groundwater elevation contours, are more appropriate to infer groundwater flow in bedrock where it is not considered a porous or homogenous medium. Groundwater flow, as well as dissolved constituent transport, is dominated by the northeast-southwest orientation of the primary fracture system, as described below, and in the Bedrock Ground Water Investigation Report [AECOM, 2009].

Groundwater flow in fractured rock environments is typically dominated by flow through fractures, such that flow paths are not in straight lines nor are they likely to be parallel to the hydraulic potential lines. The 2002 aquifer test demonstrated sufficient interconnectivity in every direction from the pumping wells to assume the bedrock acts similar to a porous medium, and the differences in drawdown depending on orientation matched well with the principal and secondary fracture orientations (there was more drawdown to the northeast). The Papadopoulos anisotropic method was used to analyze the aquifer test data, and the results aligned well with the rose diagrams of fracture orientations obtained from the borehole televiewer analysis. Contouring assumes homogeneous and isotropic conditions are present, which is not the case in the bedrock at this site.

The fracture set with the strongest influence on bedrock groundwater flow at this site (the main fracture set) has a northeast-southwest orientation, as mentioned previously. However, during operation of the pump-and-treat system for the bedrock groundwater, the hydraulic potential for groundwater flow in the bedrock was towards MW-307BR and MW-308BR (the two bedrock groundwater extraction wells). These results verified that interconnectivity is high in the bedrock aquifer. In static conditions, the hydraulic potential for groundwater flow in bedrock is generally parallel to major fracture orientations.

Hydraulic potential lines are presented in Figure 3-4 to infer potential groundwater flow directions in bedrock in January 2017. Because of the influence of bedrock fracture orientation, localized groundwater flow is not necessarily perpendicular to the hydraulic potential lines at all locations.

Since fractured bedrock aquifers are inherently anisotropic and heterogeneous, calculation of seepage velocity may not be representative using bulk porosity estimates. However, a range of porosity estimates may provide bounds on the expected seepage velocity of the bedrock aquifer. As presented in Appendix C, multiple estimates of seepage velocity were calculated by solving three-point problems for different areas of the Site and using a range of porosity estimates from the literature. The calculated range of seepage velocity in the bedrock aquifer at the Site is between 8.3×10^{-3} and 5.8×10^{-1} ft/day.

Based on January 2017 data collected under ambient (non-pumping) conditions, groundwater flow in bedrock appears to be generally toward the southeast (Figure 3-4). The groundwater recovery well at MW-307BR, which was abandoned in August-September 2015, has historically captured groundwater in the bedrock from up to 900 feet to the northeast as was evidenced by the groundwater gradient toward the pumping wells at MW-325 in previous reports.

3.2 GROUNDWATER ANALYTICAL RESULTS

Analytical results for groundwater samples collected in January 2017 from wells monitoring the various aquifers are summarized in Tables 3-2 through 3-6. These results were compared to Type 1 RRS. Detected concentrations exceeding the Type 1 RRS are presented in Figures 3-5 through 3-8. Field sampling forms are included in Appendix A, copies of the laboratory analytical reports are provided in Appendix B, and data validation reports are attached in Appendix D. A complete summary of all analytical data collected for the groundwater monitoring program (since 2001) is provided in Appendices E-1 through E-3. A summary of the January 2017 benzene and naphthalene monitoring results and comparison to historical data is presented in Section 4.

3.2.1 Alluvium

Analytical results for samples collected from alluvium monitoring wells were compared to their respective Type 1 RRS in Table 3-2. The number of alluvium monitoring wells sampled, number of detections for each COI, and range of concentrations is summarized in Table 3-7. No Type 1 RRS exceedances were reported for groundwater samples collected at alluvium monitoring wells in January 2017 with the exception of arsenic at MW-408S. Arsenic was reported at MW-408S at a concentration of 0.148 milligrams per liter (mg/L) above the Type 1 RRS of 0.05 mg/L (Figure 3-5).

3.2.2 Galliard Formation

Analytical results of samples collected from the Galliard Formation wells were compared to their respective Type 1 RRS, as summarized in Table 3-3. The number of Galliard monitoring wells sampled, number of detections for each COI, range of concentrations, and wells with Type 1 RRS exceedances are summarized in Table 3-8. The monitoring well locations where exceedances occurred and the concentrations of COI detected above the Type 1 RRS during the January 2017 groundwater monitoring event are shown in Figure 3-6. The distributions of benzene and naphthalene concentrations in groundwater samples collected from the Galliard Formation are depicted in Figure 3-9.

The greatest number of COI and the highest detected concentrations are found in groundwater sampled from wells MW-12 (in the northeast corner of the Southern Parcel), MW-205, MW-601 (in the east-central and west-central portion of Block E, respectively), and MW-600 (in the city ROW south of Block A) (Figures 3-6 and 3-9). Monitoring wells MW-502D and MW-603 contained DNAPL and were not sampled.

3.2.2.1 Volatile Organic Compound Results

During the January 2017 sampling event, benzene concentrations exceeding the applicable Type 1 RRS in groundwater were reported at five well locations (MW-12, MW-205, MW-304, MW-600, and MW-601). Ethylbenzene concentrations exceeding the applicable Type 1 RRS were reported in two groundwater samples (MW-12 and MW-600). Toluene concentrations exceeding the applicable Type 1 RRS were reported in three groundwater samples (MW-12, MW-600, and MW-601; Table 3-3 and Table 3-8). The distribution of detected VOCs, specifically MGP-related compounds, in groundwater samples collected from the Galliard formation is similar to that reported in previous events.

Consistent with previous events, TCE concentrations exceeding the applicable Type 1 RRS in groundwater were reported at well locations MW-21 and MW-401D. TCE is not an MGP-related constituent. No other VOCs were detected at MW-21 and MW-401D.

Specific VOCs were analyzed at a dilution due to the concentration of target compounds exceeding the calibration range of the instrument. The dilution factor and subsequent laboratory reporting limit exceeded the Type 1 RRS for three VOCs (acetone, methylene chloride, and TCE) analyzed in groundwater samples collected at monitoring wells MW-12, MW-600, and MW-601 (Table 3-3). Samples that were analyzed at a dilution resulting in a detection limit exceeding the Type 1 RRS have been highlighted in Table 3-3. Acetone and methylene chloride are common laboratory artifacts, while TCE has never been detected historically at these wells, with the exception of a single isolated report at MW-12 at 38 J µg/L in January 2003. The laboratory reports indicate the dilution factor for each laboratory sample (Appendix B).

3.2.2.2 Semi-Volatile Organic Compound Results

The number of SVOC detections and exceedances of Type 1 RRS and the respective wells in which the exceedances occurred are presented in Table 3-8. The spatial distribution of SVOC Type 1 RRS exceedances within the Galliard Formation is represented in Figure 3-6. During the January 2017 sampling event, naphthalene concentrations exceeding the applicable Type 1 RRS in groundwater were reported at five well locations (MW-12, MW-205, MW-304, MW-600, and MW-601). An isoconcentration map showing naphthalene distribution is presented as Figure 3-9. The distribution of SVOCs remains consistent with those reported in previous events.

3.2.2.3 Inorganic Compound Results

The data presented in Table 3-3, Table 3-8, and on Figure 3-6 indicate that the no inorganic compound exceeded Type 1 RRS in the Galliard Formation during the January 2017 groundwater monitoring event.

3.2.3 Saprolite

Analytical results for groundwater samples collected from the saprolite wells were compared to their respective Type 1 RRS in Table 3-4. The number of monitoring wells with detections and Type 1 RRS exceedances for the saprolite unit are presented in Table 3-9 and Figure 3-7.

The TCE concentration detected at MW-401SAP exceeded the Type 1 RRS (5 µg/L) at 7.1 µg/L. TCE is not an MGP-related constituent. No other VOCs or SVOCs exceeded Type 1 RRS for saprolite wells in the January sampling event.

Nickel concentrations were reported above Type 1 RRS (0.1 mg/L) at MW-306SAP (0.351 mg/L) and MW-310SAP (0.437 mg/L). The only other inorganic compound detected at a concentration

exceeding Type 1 RRS was cadmium (Type 1 RRS of 0.005 mg/L) at MW-311 (0.0601 mg/L) and MW-401SAP (0.0184 mg/L). These inorganic compound results are consistent with previous detections observed at these well locations.

3.2.4 Transition Zone

Analytical results for a sample collected from transition zone well MW-306TZ were compared to their respective Type 1 RRS in Table 3-5. Type 1 RRS exceedances for the transition zone well are presented in Table 3-10. As shown on Figure 3-8, naphthalene was detected at a concentration exceeding the Type 1 RRS (20 µg/L) in MW-306TZ at 270 µg/L. There were no other Type 1 RRS exceedances for VOCs or inorganic compounds in MW-306TZ during the January 2017 sampling event.

3.2.5 Bedrock

Bedrock sampling results reported from the January 2017 groundwater monitoring event were compared to their respective Type 1 RRS in Table 3-6. The number of bedrock monitoring wells sampled, number of detections for each COI, range of concentrations, and wells with Type 1 RRS exceedances are summarized in Table 3-11. The detected constituent concentrations exceeding Type 1 RRS and the locations of the monitoring wells are depicted in Figure 3-8. An isoconcentration map showing benzene and naphthalene distribution is presented as Figure 3-10.

3.2.5.1 Volatile Organic Compound Results

As shown on Figure 3-8, benzene and ethylbenzene were the only VOCs detected at concentrations exceeding the Type 1 RRS in bedrock monitoring wells during the January 2017 sampling event.

- Benzene concentrations exceeded the Type 1 RRS (5 µg/L) in five bedrock monitoring wells ranging from a low of 13 µg/L at MW-510BR to a high of 7,500 µg/L at MW-213; and
- Ethylbenzene was detected at a concentration exceeding the Type 1 RRS (700 µg/L) at MW-213 (1,600 µg/L).

Specific VOCs were analyzed at a dilution due to the concentration of target compounds exceeding the calibration range of the instrument. The dilution factor and subsequent laboratory reporting limit exceeded the Type 1 RRS for specific VOCs (methylene chloride and TCE) analyzed in the groundwater sample collected at monitoring well MW-213 (Table 3-6), and for TCE at MW-500BR. Samples that were analyzed at a dilution resulting in a detection limit exceeding the Type 1 RRS have been highlighted in Table 3-6. The laboratory reports indicate the dilution factor for each laboratory sample (Appendix B).

3.2.5.2 Semi-Volatile Organic Compound Results

One or more SVOCs were detected at concentrations exceeding their Type 1 RRS in groundwater samples collected at six bedrock well locations during the January 2017 sampling event (Figure 3-8, Table 3-6, and Table 3-11). Naphthalene was the primary SVOC detected above Type 1 RRS (20 µg/L) at concentrations ranging from 310 µg/L (MW-306BR) to 6,200 µg/L (MW-213). Concentrations and specific COI detected in bedrock groundwater samples above Type 1 RRS are similar to those reported in previous events.

3.2.5.3 Inorganic Compound Results

The only Type 1 RRS exceedance of inorganic compounds in bedrock groundwater was for cadmium (Type 1 RRS value of 0.005 mg/L) in monitoring wells MW-500BR (0.0124 mg/L) and MW-510BR (0.00591 mg/L).

3.3.4 Quality Assurance, Quality Control, and Data Validation

All field QA/QC data, and at least 10 percent of the VOC, SVOC, and inorganic data presented in the analytical reports, were reviewed by Amec Foster Wheeler's data validation group. Laboratory analytical reports for all samples are provided in Appendix B, and the data validation reports for VOC, SVOC, and inorganic data are included in Appendix D. These data were reviewed in accordance with the USEPA Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services (USEPA, 2008/2011).

As shown in Appendix D, Amec Foster Wheeler's data validation group reviewed sample delivery groups 1701M28, 1701M29, 1701M30, 1701O61, 1701O62, 1701O63 and 1702054. The following items were included in the data validation review:

- Sample integrity
- Reporting limits
- Method blanks
- Laboratory control samples
- Surrogate recoveries

- Matrix spike/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPD)
- Laboratory and field duplicate relative percent differences (RPDs)
- Trip, field and/or equipment blanks

Three MS/MSD sample sets were collected and analyzed as part of the laboratory analytical batch QC (MW-320, MW-507BR, and MW-513BR). The data validation review (Appendix D) includes a detailed discussion of sample integrity. The results of the data validation review are summarized below.

One field duplicate pair, (DUP-6-0117/MW-19-0117), had an RPD outside of QC limits for anthracene, benzo(a)anthracene, benzo(a)pyrene and pyrene. No qualification was required because the PAHs were present in the samples at concentrations less than 5x the reporting limit.

An MS/MSD was performed on sample MW-513BR-0117 and the RPD was outside of QC limits for benzo(a)pyrene. An MS/MSD was also performed on sample MW-507BR-0117 and the RPD was outside of QC limits for indeno(1,2,3-cd)pyrene. The benzo(a)pyrene result in sample MW-513BR-0117 and the indeno(1,2,3-cd)pyrene result in sample MW-507BR-0117 were considered non-detect with estimated reporting limits and flagged "UJ".

4.0 DATA COMPARISON AND SUMMARY

AGLC performed an empirical evaluation of the groundwater data collected from the beginning of the corrective action groundwater monitoring and evaluation program (2001) through present (January 2017) and compared the most recent data to the historic program dataset to determine if there were any trends toward improvement or degradation of groundwater quality.

Data comparison discussion for COI focus on benzene (the primary VOC contaminant), naphthalene (the primary SVOC contaminant), and TCE (the only chlorinated VOC COI). Results of data queries are presented as historical data summary tables presented in Appendices E-1 through E-3. Graphs reflecting temporal concentration changes of benzene and naphthalene are presented in Appendix F. Graphs were created for wells with historical detections of benzene and naphthalene.

4.1 ALLUVIUM WELLS

Based on the evaluation of dissolved-phase constituents in the alluvium wells during this monitoring period, no discernable groundwater plume exists in the alluvium aquifer (Table 3-7). There was one exceedance of Type 1 RRS in alluvium wells in January 2017 at MW-408S (arsenic at 0.148 mg/L).

4.2 GALLIARD WELLS

Data collected during the January 2017 monitoring event indicate the following:

- Naphthalene and benzene concentrations continue to be below their respective Type 1 RRS in Galliard Formation monitoring wells west of the Third Level Canal and east of King Street with the exception of MW-304. (Figure 3-6). The benzene concentration reported for MW-304 (290 µg/L), is higher than the 160 µg/L reported in July 2016, the 45 µg/L reported in January 2016, and the 22 µg/L reported in July 2015, but continues to be below the January 2010 concentration (800 µg/L). The naphthalene concentration in MW-304 (21 µg/L) in January 2017 was only slightly above the Type 1 RRS of 20 µg/L. MW-304 will continue to be evaluated to assess concentrations trends at this location.
- The extent of benzene and naphthalene concentrations reported to exceed the Type 1 RRS in the Galliard Formation north of the Site appears similar to that seen in recent monitoring events, with the exception of a slight exceedance of the benzo(a)anthracene Type 1 RRS (0.1 µg/L) at MW-607 (0.14 µg/L), which could possibly be related to the slightly higher turbidity value of 20.9 NTU measured prior to sampling. With the exception of the slight exceedance at MW-607, MW-603 continues to be the northernmost impacted well and was not sampled in January 2017 due to the presence of DNAPL during gauging (Table 3-1). DNAPL was previously reported in MW-603 during the July 2013, January and July 2014, January and July 2015, and January and July 2016 sampling events.
- MW-505D is located along the southern edge of the naphthalene plume. The naphthalene concentration in MW-505D in the January 2017 sampling event (17 µg/L) was below the Type 1 RRs (20 µg/L). Detections of naphthalene at MW-505D were first detected above the Type 1 RRS in July 2012. The naphthalene concentration high was reported in July 2013 (870 µg/L). Naphthalene concentrations were reported during January 2015 (4.2 µg/L) at a concentration below the Type 1 RRS for the first time since January 2012. While the naphthalene concentration in MW-505D was higher in July 2016 (78 µg/L) than in the January 2016 sampling event (51 µg/L), the recent

overall trend is relatively stable or decreasing, as evidenced by the January 2017 concentration of 17 µg/L.

- Concentrations of benzene and naphthalene remain highest in groundwater samples collected from the northeast corner of the Southern Parcel (MW-12), the western portion of Block E (MW-601) and the city ROW south of Block A (MW-600) (Table 3-3). Groundwater samples collected from the Galliard monitoring wells MW-12, MW-600, and MW-601 had reported concentrations of benzene at 10,000 µg/L, 27,000 µg/L, and 8,200 µg/L, respectively; and naphthalene concentrations at 7,100 µg/L (duplicate value), 5,700 µg/L (duplicate value) and 3,100 µg/L, respectively (Figure 3-6). These concentrations are similar to the levels reported in these wells in recent years.
- Groundwater samples collected from MW-21 and MW-401D reported concentrations of TCE above the Type 1 RRS (5 µg/L) at 6.8 µg/L and 10 µg/L, respectively. TCE has previously been detected in these wells and is not an MGP-related COI.

4.3 SAPROLITE WELLS

Five saprolite monitoring wells were sampled during the January 2017 monitoring event. A VOC concentration exceeding the Type 1 RRS was reported in one groundwater sample, TCE in sample MW-401SAP (7.1 µg/L). Benzene was not detected in the January 2017 sample result from MW-311, as compared to concentrations of benzene of 44 µg/L in July 2016 and 58 µg/L in January 2016. Concentrations remain well below historic highs at this location (Appendix F).

4.4 TRANSITION ZONE WELLS

Naphthalene, at a concentration of 270 µg/L, was the only COI reported above Type 1 RRS in the one transition zone monitoring well (MW-306TZ) sampled in January 2017. This concentration was the same as that reported in July 2016. The January 2017 and July 2016 concentrations continue to represent a decline from reported concentrations in July 2005 (910 µg/L) and July 2009 (1,100 µg/L). No other detections of COI were reported above their respective Type 1 RRS, as shown on Table 3-5.

4.5 BEDROCK WELLS

Data collected during the January 2017 monitoring event indicate the following:

- The highest concentration of benzene (7,500 µg/L) was reported at MW-213, located on Block E east of the Northern Parcel. This benzene concentration represents an increase from the July 2016 (7,200 µg/L) and January 2016 (7,400 µg/L) concentrations, and a decrease from the July 2015 concentration (8,400 µg/L). While the January 2015 benzene concentration represented a noticeable increase in concentration, the concentrations of benzene reported in July 2015, January and July 2016 and January 2017 at MW-213 have all been below the January 2015 value. The second-highest concentration of benzene (5,600 µg/L) was reported at MW-500BR, located south of the Northern Parcel on the southern side of the canal. While this concentration is an increase from the July 2016 value (3,100 µg/L), it continues to represent a decrease from both the January 2016 concentration of 9,300 µg/L and the July 2015 concentration of 6,200 µg/L. The benzene concentration trend appears to be generally decreasing at this location since the benzene concentration high was reported in July 2012 (14,000 µg/L). (Appendix F).
- Groundwater samples collected from MW-319 and MW-320 continue to delineate Type 1 RRS exceedances in bedrock groundwater to the northeast. No COI were detected above Type 1 RRS in groundwater samples collected from MW-319 and MW-320.

- Groundwater concentrations detected in bedrock well MW-315 delineate Type 1 RRS exceedances to the northwest. The groundwater sample collected from bedrock well MW-507BR delineates the extent of naphthalene impacts in bedrock to the south-southwest in Block J, while the groundwater sample from bedrock well MW-508BR delineates the extent of naphthalene in bedrock to the southeast. Benzene and naphthalene were not detected in MW-507BR, MW-508BR, or MW-315 during the January 2017 sampling event (Appendix E-2).

5.0 PERFORMANCE AND OPERATIONS OF BEDROCK GROUNDWATER EXTRACTION SYSTEM

Bedrock monitoring wells MW-307BR and MW-308BR were converted to groundwater extraction wells in 2006. The groundwater extraction and treatment system continuously operated since start up on November 30, 2006 with the exception of temporary shutdowns due to routine maintenance activities, until June of 2015, as described below. MW-307BR and MW-308BR continued to be sampled through the extraction system as part of semiannual monitoring, but were no longer gauged. The groundwater pump and treatment system was turned off for a carbon changeout December 29, 2014. During restart of the system on January 30, 2015, the groundwater pump in MW-308BR was found to be damaged. The system then was operated with the use of MW-307BR only until MW-307BR ceased pumping in June 2015 due to mechanical issues. MW-307BR was abandoned in August-September 2015, as described previously. Thus, the treatment system has not operated since June 2015. MW-308BR was sampled by use of a peristaltic pump during the January 2017 sampling event as the pump in the recovery well was not operational during the sampling event. The results are summarized in the previous sections (Sections 3.0 and 4.0). As shown in the concentration trend graph provided in Appendix F, the naphthalene and benzene concentrations reported at MW-308BR have decreased substantially since extraction from that well ended in December 2014.

As described in the 18th CAER (Amec Foster Wheeler, 2015b), MW-308BR is not currently operating in the interim leading up to remediation, and mass reduction calculations will be suspended during this interim period and during implementation of remediation. Graphs showing the trends of the mass removal up to the point when extraction ended are provided in Appendix G.

As stated in the VRP 1st Semiannual Status Report (Amec Foster Wheeler, 2015a), groundwater will continue to be sampled semiannually consistent with the current program until construction is initiated. A modified program with a subset of existing bedrock wells may be sampled during ISS implementation to continue to evaluate groundwater quality in the bedrock aquifer.

6.0 CONCLUSIONS

The following conclusions are derived from the data and analyses presented in this report:

Alluvium

- There was only one exceedance of COI in alluvium monitoring wells sampled in January 2017. Arsenic was reported in January 2017 at MW-408S at a concentration of 0.148 milligrams per liter (mg/L), above the Type 1 RRS of 0.05 mg/L. The benzene exceedance detected in MW-501S in January 2015 appears to be anomalous and has not been detected since.

Galliard Formation

- Select organic COI concentrations exceeded Type 1 RRS in eight wells in the Galliard Formation (MW-12, MW-21, MW-205, MW-304, MW-401D, MW-600, MW-601, and MW-607). The single minor exceedance at MW-607 (benzo(a)anthracene at 0.14 µg/L) could possibly be related to the slightly higher turbidity value of 20.9 NTU measured prior to sampling. The sole RRS exceedance in MW-21 (located approximately 1300 feet east of the Northern Parcel) was TCE, which is not an MGP-related constituent.
- No inorganic COI exceeded Type 1 RRS in Galliard groundwater samples during the January 2017 sampling event.
- DNAPL was observed in two wells (MW-502D and MW-603), located within the Galliard groundwater plume during the January 2017 sampling event, and these wells were not sampled.

Saprolite

- An organic COI concentration exceeding Type 1 RRS was reported in one groundwater sample collected from wells installed in the saprolite unit, TCE in the sample from MW-401SAP. Benzene and naphthalene concentrations remain well below historic highs in MW-311 (Appendix F).
- Nickel in MW-306SAP and MW-310SAP and cadmium in MW-311 and MW-401SAP were reported in excess of the Type 1 RRS. No other inorganic COI exceeded RRS in January 2017 in wells installed in the saprolite unit.

Transition Zone

- The groundwater sample collected from MW-306TZ in January 2017 had a reported exceedance of the Type 1 RRS for naphthalene only. There were no other transition zone wells sampled during this event.

Bedrock

- Benzene was the only VOC that exceeded Type 1 RRS in the following bedrock wells: MW-318, MW-500BR, MW-510BR and MW-511BR. Benzene and ethylbenzene exceeded Type 1 RRS in MW-213.
- One or more SVOCs were detected in six bedrock monitoring wells in excess of the Type 1 RRS, as shown on Table 3-11.
- Cadmium exceeded Type 1 RRS in wells MW-500BR and MW-510BR. There were no other inorganic COI exceedances in bedrock monitoring wells during the January 2017 sampling event.

- The bedrock extraction system is not currently operating in the interim leading up to remediation that is tentatively scheduled to begin in Third Quarter 2017. As stated in the Voluntary Remediation Program 1st Semiannual Status Report (Amec Foster Wheeler, 2015a), groundwater will continue to be sampled semiannually consistent with the current program until construction is initiated. A modified program with a subset of existing bedrock wells may be sampled during ISS implementation to continue to evaluate groundwater quality.
- As stated in the 17th CAER, AGLC has discontinued MNA sampling until the corrective actions performed under the VRP have been completed.
- Observations from the Continuing Action Monitoring Plan inspection have been documented in Appendix H.

The next semiannual groundwater monitoring event will be performed in July 2017 and the 22nd Semiannual CAER will be submitted as an appendix to the Sixth Semiannual VRP Status Report to be submitted by December 1, 2017.

7.0 REFERENCES

- AECOM, 2009. *Bedrock Groundwater Investigation Report, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by AECOM, February 19, 2009.
- Amec Foster Wheeler, 2015a. *Voluntary Remediation Program 1st Semiannual Status Report, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment and Infrastructure, Inc., May 29, 2015.
- Amec Foster Wheeler, 2015b. *18th Semi-Annual Corrective Action Effectiveness Report, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Amec Foster Wheeler Environment and Infrastructure, Inc., November 27, 2015.
- ECM, 2011. *Data-Gap Investigation and Monitoring Well Installation/Decommissioning Report, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Environmental Cost Management, Inc., February 14, 2011.
- ECM, 2012. *Site Conceptual Model Addendum, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Environmental Cost Management, Inc., February 2012.
- ECM, 2012a. *Ground Water Flow and Transport, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Environmental Cost Management, Inc., June 5, 2012.
- ECM, 2012b. *Feasibility Study, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by Environmental Cost Management, Inc., December 13, 2012.
- EPD, 2000. Hazardous Waste Consent Order, Order No. EPD HW 1390. Prepared by the Georgia Department of Natural Resources, Environmental Protection Division, July 11, 2000.
- Fetter, C.W., 2001. *Applied hydrogeology (Fourth edition)*: Prentice-Hall, Inc., Upper Saddle River, New Jersey, 598 p.
- Johnson, A.I., 1967. *Specific yield-compilation of specific yields for various materials*: U.S. Geological Survey Water-Supply Paper 1662-D, 74 p.
- LAW, 2002. *Basis of Design Workplan, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by LAW Environmental, December 9, 2002.
- MACTEC, 2005. *Northern Parcel Corrective Action Closure Report, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by MACTEC, August 9, 2005.
- MACTEC, 2009. *Corrective Action Closure Report and Compliance Status Report On-site and Off-site Parcels Operable Units 1 and 2, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by MACTEC, January 16, 2009.
- MACTEC, 2009. *Corrective Action Closure Report and Compliance Status Report Third Level Canal Operable Unit 3, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by MACTEC, January 16, 2009.
- META, 2012. *Environmental Forensic Report*. Prepared by META Environmental, Inc., November 27, 2012.
- ThermoRetec, 2001. *Corrective Action Plan, Former Manufactured Gas Plant Site, Augusta, Georgia*. Prepared by ThermoRetec Consulting Corporation, November 2001.
- USEPA, 2008/2011. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services*. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011(inorganic).
- USEPA, 2013. *Operation Procedure, Groundwater Sampling*. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, March 2013.

TABLES

Table 2-1
Monitoring Well Network Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Well ID	Hydrogeologic Unit	Well Monitoring Status	Location
Alluvium Monitoring Wells			
MW-05*	Alluvium	Gauge and Sample	On-site
MW-17		Gauge Only	On-site
MW-306S		Gauge Only	Off-site
MW-401S		Gauge and Sample	Off-site
MW-402S		Gauge and Sample	On-site
MW-408S		Gauge and Sample	Off-site
MW-501S		Gauge and Sample	Off-site
Galliard Formation Monitoring Wells			
MW-12	Galliard	Gauge and Sample	On-site
MW-19		Gauge and Sample	On-site
MW-21		Gauge and Sample	Off-site
MW-22		Gauge and Sample	Off-site
MW-24	Upper Galliard	Gauge Only	Off-site
MW-25		Gauge Only	Off-site
MW-202DR	Galliard	Gauge and Sample	On-site
MW-203	Middle Galliard	Gauge and Sample	On-site
MW-205	Galliard	Gauge and Sample	On-site
MW-206		Gauge and Sample	Off-site
MW-207		Gauge and Sample	On-site
MW-303		Gauge and Sample	Off-site
MW-304		Gauge and Sample	Off-site
MW-306D		Gauge and Sample	Off-site
MW-307D***		Gauge and Sample	Off-site
MW-309D		Gauge Only	Off-site
MW-310D		Gauge Only	On-site
MW-401D		Gauge and Sample	Off-site
MW-402D		Gauge and Sample	On-site
MW-404DR		Gauge and Sample	Off-site
MW-408DR		Gauge and Sample	Off-site
MW-502D		Gauge and Sample	On-site
MW-505D		Gauge and Sample	Off-site
MW-600		Gauge and Sample	Off-site
MW-601		Gauge and Sample	On-site
MW-602		Gauge and Sample	Off-site
MW-603		Gauge and Sample	Off-site

Notes:

D - denotes well screened in the Galliard Formation

BR - denotes bedrock well (where used in well name)

TZ - denotes well screened in the Transition Zone in DDSP wells

This table includes only those wells that will be sampled during and/or after the VRP remedy

Except as noted, only those wells that are still considered active (e.g., not destroyed or abandoned) are included in this table; additionally, wells planned for abandonment are not included

* The MW-05 protective cover was destroyed during the Canal Authority's path improvement along canal; the cover has been repaired

** MW-506BR has been paved over (destroyed) by the City of Augusta sometime between July 2012 and January 2013

*** Abandoned August-September 2015

Well ID	Hydrogeologic Unit	Well Monitoring Status	Location
Saprolite Monitoring Wells			
MW-214	Saprolite	Gauge and Sample	Off-site
MW-306SAP		Gauge and Sample	Off-site
MW-307SAP***		Gauge and Sample	Off-site
MW-310SAP		Gauge and Sample	On-site
MW-311		Gauge and Sample	On-site
MW-401SAP		Gauge and Sample	Off-site
Transition Zone and Bedrock Monitoring Wells			
MW-213	Bedrock	Gauge and Sample	On-site
MW-306TZ	Transition Zone	Gauge and Sample	Off-site
MW-306BR	Bedrock	Gauge and Sample	Off-site
MW-307TZ***	Transition Zone	Gauge Only	Off-site
MW-307BR***	Bedrock	Gauge and Sample	Off-site
MW-308BR		Gauge and Sample	On-site
MW-309BR		Gauge and Sample	Off-site
MW-310BR		Gauge and Sample	On-site
MW-313		Gauge and Sample	Off-site
MW-315		Gauge and Sample	Off-site
MW-316***		Gauge Only	Off-site
MW-318		Gauge and Sample	Off-site
MW-319		Gauge and Sample	Off-site
MW-320		Gauge and Sample	Off-site
MW-321***		Gauge and Sample	Off-site
MW-322***		Gauge Only	Off-site
MW-323***		Gauge Only	Off-site
MW-324***		Gauge and Sample	Off-site
MW-325		Gauge and Sample	Off-site
MW-500BR		Gauge and Sample	Off-site
MW-503BR		Gauge and Sample	Off-site
MW-504BR		Gauge and Sample	Off-site
MW-506BR**		Gauge and Sample	Off-site
MW-507BR		Gauge and Sample	Off-site
MW-508BR		Gauge and Sample	On-site
MW-509BR		Gauge and Sample	Off-site
MW-510BR		Gauge and Sample	Off-site
MW-511BR		Gauge and Sample	Off-site
MW-512BR		Gauge and Sample	Off-site
MW-513BR		Gauge and Sample	Off-site

Prepared by: ERM

Revision by/date: JMQ 5/17/17

Checked by/date: NJM 5/18/17

Table 2-2
Monitoring Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Monitoring Well ID	Date Installed	Well Type	Well Materials	Ground Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Screened Interval (ft bgs)
Alluvium Monitoring Wells						
MW-05*	10/19/1985	II	PVC	130.00	132.11	4.2 - 18.6
MW-17	2/2/1992	II	SS	136.60	138.85	12.4 - 16.7
MW-306S	11/6/1998	DDSP	PVC	132.08	131.96	8.5 - 9.5
MW-401S	8/31/2000	II	PVC	134.44	136.89	10 - 20
MW-402S	8/30/2000	II	PVC	136.88	136.89	9 - 19
MW-408S	10/18/2000	II	PVC	133.65	133.31	10 - 20
MW-501S	1/17/2007	II	PVC	132.98	132.80	7 - 12
Galliard Formation Monitoring Wells						
MW-12	5/15/1986	II	PVC	131.80	131.31	20 - 30
MW-19	2/4/1992	II	SS	138.70	140.37	15.3 - 19.7
MW-21	12/8/1992	II	SS	129.80	128.54	22.3 - 27.9
MW-22	5/4/1994	II	PVC	130.60	129.60	18.3 - 22.3
MW-24	5/6/1994	II	PVC	131.10	130.21	8.3 - 12.3
MW-25	5/6/1994	II	PVC	129.80	128.88	18.9 - 22.9
MW-202DR	1/24/2007	II	PVC	131.70	131.59	24.5 - 29.5
MW-203	11/14/1995	II	PVC	131.70	130.74	22.1 - 26.0
MW-205	11/22/1995	II	SS	132.20	130.94	23.3 - 28.1
MW-206	11/28/1995	II	PVC	130.90	130.06	23.9 - 27.8
MW-207	10/11/1995	II	PVC	130.40	132.68	20.6 - 24.6
MW-211	10/11/1995	II	PVC	139.60	138.59	20.5 - 24.4
MW-303	11/18/1998	II	PVC	129.63	129.37	25.5 - 30.5
MW-304	11/2/1998	II	PVC	131.63	131.51	31 - 36
MW-306D	11/6/1998	DDSP	PVC	132.08	131.89	24.5 - 25.5
MW-307D***	11/10/1998	DDSP	PVC	130.53	130.45	24.5 - 25.5
MW-309D	11/8/1998	DDSP	PVC	129.97	129.79	27.5 - 28.5
MW-310D	11/3/1998	DDSP	PVC	138.79	138.70	27 - 28
MW-401D	8/31/2000	II	PVC	134.37	134.38	33 - 36
MW-402D	8/30/2000	II	PVC	136.89	136.95	24.7 - 26.2
MW-404DR	1/30/2007	II	PVC	133.10	133.15	16.5 - 21.5
MW-408D	2/22/2011	II	PVC	133.46	133.02	25 - 30
MW-502D	1/30/2007	II	PVC	131.20	131.18	20 - 26
MW-505D	1/31/2007	II	PVC	128.87	128.87	23.5 - 28.5
MW-600	10/19/2010	II	PVC	131.34	131.02	22 - 32
MW-601	10/20/2010	II	PVC	131.10	130.82	17 - 27
MW-602	10/19/2010	II	PVC	130.55	130.20	22 - 32
MW-603	10/19/2010	II	PVC	130.80	130.65	17 - 27
MW-604	10/19/2015	II	PVC	135.10	135.65	20 - 30
MW-605	10/19/2015	II	PVC	134.60	134.36	22 - 32
MW-606	10/20/2016	II	PVC	136.20	135.86	21 - 31
MW-607	10/21/2016	II	PVC	131.60	131.12	19 - 29
Notes: ft AMSL - feet above mean sea level ft bgs - feet below ground surface II - double casing well III - triple casing well PVC - polyvinyl chloride SS - stainless steel Only active monitoring wells are included in this table. DDSP - depth discrete sampling port * The MW-05 protective cover was destroyed during the Canal Authority's path improvement along canal; the cover has been repaired ** MW-506BR has been paved over (destroyed) by the City of Augusta sometime between July 2012 and January 2013 *** Abandoned August-September 2015						

Table 2-2
Monitoring Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Monitoring Well ID	Date Installed	Well Type	Well Materials	Ground Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Screened Interval (ft bgs)
Saprolite Monitoring Wells						
MW-214	12/7/1995	II	PVC	130.60	129.65	52.6 - 56.6
MW-306SAP	11/6/1998	DDSP	PVC	132.08	131.92	30.5 - 31.5
MW-307SAP***	11/10/1998	DDSP	PVC	130.53	130.48	30.5 - 31.5
MW-309SAP	11/8/1998	DDSP	PVC	129.97	129.82	34.5 - 35.5
MW-310SAP	11/3/1998	DDSP	PVC	138.79	138.72	34 - 35
MW-311	11/20/1998	II	PVC	130.32	130.11	30 - 32
MW-317	9/6/2000	II	PVC	130.90	130.64	31 - 41
MW-401SAP	8/31/2000	II	PVC	134.23	134.27	38 - 48
MW-603SAP	7/27/2016	II	PVC	NS	NS	28 - 38
Transition Zone and Bedrock Monitoring Wells						
MW-213	12/8/1995	III	PVC	131.90	130.92	58.5 - 62.5
MW-306BR	11/23/1998	III	PVC	132.03	131.81	55 - 80
MW-306TZ	11/6/1998	DDSP	PVC	132.08	131.93	58.5 - 59.5
MW-307BR***	11/22/1998	III	PVC	130.75	130.27	48 - 73.25
MW-307TZ***	11/10/1998	DDSP	PVC	130.53	130.48	46.5 - 47.5
MW-308BR	11/21/1998	III	PVC	131.34	131.08	55.5 - 80.5
MW-309BR	11/24/1998	III	PVC	129.84	129.54	83.75 - 109
MW-309TZ	11/8/1998	DDSP	PVC	129.97	129.76	76.5 - 77.5
MW-310BR	11/25/1998	III	PVC	139.72	139.49	65 - 90
MW-310TZ	11/3/1998	DDSP	PVC	138.79	138.72	73 - 74
MW-313	8/10/2000	III	PVC	129.01	129.02	61 - 86
MW-315	8/10/2000	III	PVC	131.91	131.74	59.5 - 85.5
MW-316***	9/1/2000	III	PVC	130.71	130.51	88 - 119.8
MW-318	9/8/2000	III	PVC	130.94	130.75	62 - 87
MW-319	12/13/2000	III	PVC	133.20	132.98	55 - 80
MW-320	1/6/2001	III	PVC	132.08	131.74	70 - 76
MW-321***	1/19/2001	III	PVC/SS	130.86	130.48	160 - 170.2
MW-322***	12/14/2000	III	PVC	130.69	130.65	49 - 86
MW-323***	12/15/2000	III	PVC	130.65	130.53	70.5 - 95
MW-324***	5/31/2001	III	PVC/SS	130.83	130.98	209 - 215
MW-325	5/22/2001	III	PVC	131.53	131.44	95 - 115
MW-500BR	1/24/2007	III	PVC	132.76	132.66	64 - 79
MW-503BR	9/5/2008	III	PVC	131.80	131.57	56 - 76
MW-504BR	9/4/2008	III	PVC	131.10	130.91	60 - 80
MW-506BR**	8/27/2008	III	PVC	139.70	139.23	66 - 81
MW-507BR	8/25/2008	III	PVC	139.10	138.76	106 - 125
MW-508BR	8/25/2008	III	PVC	130.50	133.26	70 - 86
MW-509BR	9/18/2009	III	PVC	131.10	130.63	56 - 76
MW-510BR	9/15/2008	III	PVC	131.00	130.76	60 - 80
MW-511BR	9/9/2008	III	PVC	131.20	130.82	56 - 76
MW-512BR	8/29/2008	III	PVC	132.00	131.70	64 - 84
MW-513BR	10/20/2010	III	PVC	132.40	132.03	51.5 - 82
Notes: ft AMSL - feet above mean sea level ft bgs - feet below ground surface II - double casing well III - triple casing well ** MW-506BR has been paved over (destroyed) by the City of Augusta sometime between July 2012 and January 2013 *** Abandoned August-September 2015 NS - Not Surveyed						
PVC - polyvinyl chloride SS - stainless steel Only existing monitoring wells are included in this table. DDSP - depth discrete sampling port						
Prepared by: ERM						
Revision by/date: JMQ 9/28/16						
Checked by/date: NJM 9/28/16						

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone	Ethylbenzene	Trichloroethylene
Benzene	Methylene Chloride	Xylenes (total)
Carbon Disulfide	Toluene	
Semivolatile Organic Compounds (SVOCs), (SW-846 Method 8270C)		
Acenaphthene	Benzo(g,h,i)perylene	Indeno(1,2,3-cd)pyrene
Acenaphthylene	Benzo(k)fluoranthene	Naphthalene
Anthracene	Chrysene	Phenanthrene
Benzo(a)anthracene	Dibenzo(a,h)anthracene	Pyrene
Benzo(a)pyrene	Fluoranthene	
Benzo(b)fluoranthene	Fluorene	
Inorganics (SW-846 Methods 6010B, 7470A, 6020, and 9010/9012)		
Antimony	Copper	Thallium
Arsenic	Cyanide	Vanadium
Barium	Lead	Zinc
Beryllium	Mercury	
Cadmium	Nickel	
Chromium	Selenium	

Prepared by/date: JMQ 10/29/15

Checked by/date: SAG 11/24/15

Table 3-1
Depth to Water and Groundwater Elevations
January 23-25, 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Monitoring Well ID	Hydrogeologic Unit	Top of Casing (ft AMSL)	Well Casing Total Depth (ft BTOC)	Depth to Water 1/23-25/2017 (ft BTOC)	Groundwater Elevation (ft AMSL)	Thickness of NAPL (ft)
Alluvium Monitoring Wells						
MW-05	Alluvium	132.11	Well Obstruction (1)			--
MW-17	Alluvium	138.85	14.36	13.15	125.70	--
MW-306S	Alluvium	131.96	8.38	4.71	127.25	--
MW-401S	Alluvium	136.89	19.40	12.00	124.89	--
MW-402S	Alluvium	136.89	19.22	14.39	122.50	--
MW-408S	Alluvium	133.31	18.59	10.57	122.74	--
MW-501S	Alluvium	132.80	11.66	6.37	126.43	--
Galliard Formation Monitoring Wells						
MW-12	Galliard	131.31	24.95	5.77	125.54	--
MW-19	Galliard	140.37	19.37	14.53	125.84	--
MW-21	Galliard	128.54	28.44	5.57	122.97	--
MW-22	Galliard	129.60	22.75	4.00	125.60	--
MW-24	Galliard	130.21	22.26	4.51	125.70	--
MW-25	Galliard	128.88	23.58	3.73	125.15	--
MW-202DR	Galliard	131.59	29.26	5.78	125.81	--
MW-203	Galliard	130.74	26.51	4.99	125.75	--
MW-205	Galliard	130.94	25.90	5.23	125.71	--
MW-206	Galliard	130.06	28.40	5.20	124.86	--
MW-207	Galliard	132.68	26.05	6.32	126.36	--
MW-303	Galliard	129.37	30.75	4.55	124.82	--
MW-304	Galliard	131.51	36.40	7.72	123.79	--
MW-306D	Galliard	131.89	23.40	5.88	126.01	--
MW-307D	Galliard	130.45	Abandoned August/September 2015			--
MW-309D	Galliard	129.79	21.7	4.75	125.04	--
MW-310D	Galliard	138.70	27.44	15.97	122.73	--
MW-401D	Galliard	134.38	36.11	12.02	122.36	--
MW-402D	Galliard	136.95	26.40	14.49	122.46	--
MW-404DR	Galliard	133.15	21.47	7.24	125.91	--
MW-408DR	Galliard	133.02	24.61	10.78	122.24	--
MW-502D	Galliard	131.18	NM	6.45	124.73	NAPL on probe
MW-505D	Galliard	128.87	28.2	6.06	122.81	--
MW-600	Galliard	131.02	31.25	5.02	126.00	--
MW-601	Galliard	130.82	27.04	5.06	125.76	--
MW-602	Galliard	130.2	31.90	6.15	124.05	--
MW-603	Galliard	130.65	NM	NM	NM	0.16' (Measured 1/31/17)
MW-604	Galliard	135.65	29.97	12.21	123.44	--
MW-605	Galliard	134.36	31.53	11.86	122.50	--
MW-606	Galliard	135.86	31.07	13.07	122.79	--
MW-607	Galliard	131.12	28.66	9.20	121.92	--

Notes:

ft = Feet

AMSL = above mean sea level

BTOC = below top of casing

NAPL = non-aqueous phase liquid

NM = not measured

(1) = Obstruction encountered in well at a depth of 4.98' BTOC.

Table 3-1
Depth to Water and Groundwater Elevations
January 23-25, 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Monitoring Well ID	Hydrogeologic Unit	Top of Casing (ft AMSL)	Well Casing Total Depth (ft BTOC)	Depth to Water 1/23-25/2017 (ft BTOC)	Groundwater Elevation (ft AMSL)	Thickness of NAPL (ft)
Saprolite Monitoring Wells						
MW-214	Saprolite	129.65	57.20	5.45	124.20	--
MW-306SAP	Saprolite	131.92	23.51	6.90	125.02	--
MW-307SAP	Saprolite	130.48	Abandoned August/September 2015			--
MW-309SAP	Saprolite	129.82	NM	5.90	123.92	--
MW-310SAP	Saprolite	138.72	34.10	15.95	122.77	--
MW-311	Saprolite	130.11	32.60	3.55	126.56	--
MW-317	Saprolite	130.64	41.33	7.61	123.03	--
MW-401SAP	Saprolite	134.27	43.08	12.24	122.03	--
MW-603SAP	Saprolite	NA	38.31	7.55	NA	--
Transition Zone and Bedrock Monitoring Wells						
MW-213	Bedrock	130.92	60.60	6.60	124.32	--
MW-306TZ	TransZone	131.93	22.45	7.01	124.92	--
MW-306BR	Bedrock	131.81	79.2	7.16	124.65	--
MW-307TZ	TransZone	130.48	Abandoned August/September 2015			--
MW-309BR	Bedrock	129.54	106.31	6.35	123.19	--
MW-309TZ	TransZone	129.76	NA	6.75	123.01	--
MW-310TZ	TransZone	138.72	25.83	14.31	124.41	--
MW-310BR	Bedrock	139.49	89.31	15.30	124.19	--
MW-313	Bedrock	129.02	85.91	5.55	123.47	--
MW-315	Bedrock	131.74	85.92	7.56	124.18	--
MW-316	Bedrock	130.51	Abandoned August/September 2015			--
MW-318	Bedrock	130.75	63.77	6.24	124.51	--
MW-319	Bedrock	132.98	79.53	8.89	124.09	--
MW-320	Bedrock	131.74	68.35	7.50	124.24	--
MW-321	Bedrock	130.48	Abandoned August/September 2015			--
MW-322	Bedrock	130.65	Abandoned August/September 2015			--
MW-323	Bedrock	130.53	Abandoned August/September 2015			--
MW-324	Bedrock	130.98	Abandoned August/September 2015			--
MW-325	Bedrock	131.44	98.56	8.76	122.68	--
MW-500BR	Bedrock	132.66	55.27	8.20	124.46	--
MW-503BR	Bedrock	131.57	57.10	6.83	124.74	--
MW-504BR	Bedrock	130.91	72.66	5.92	124.99	--
MW-506BR	Bedrock	139.22	Destroyed			--
MW-507BR	Bedrock	138.75	126.50	13.74	125.01	--
MW-508BR	Bedrock	133.25	73.70	9.10	124.15	--
MW-509BR	Bedrock	130.63	61.78	5.98	124.65	--
MW-510BR	Bedrock	130.75	66.07	6.04	124.71	--
MW-511BR	Bedrock	130.82	61.05	6.68	124.14	--
MW-512BR	Bedrock	131.69	62.42	7.01	124.68	--
MW-513BR	Bedrock	132.03	52.25	7.24	124.79	--

Notes:

Groundwater measurements taken 1/23-25/17

ft = Feet

AMSL = above mean sea level

BTOC = below top of casing

NAPL = non aqueous phase liquid

NM = not measured

MW-308BR is used for groundwater extraction and depth to groundwater measurements are not collected

Prepared by/date: NJM 1/31/17

Checked by/date: JPM 2/17/17

Table 3-2
Groundwater Analytical Results for Alluvium Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site

		Location ID:	MW-401S	MW-401S	MW-402S	MW-408S	MW-501S	MW-501S
		Sample Date:	1/26/2017	1/26/2017	1/25/2017	1/26/2017	1/26/2017	1/26/2017
		Sample Type:	Sample	Duplicate	Sample	Sample	Sample	Duplicate
	Type 1 RRS	Units						
Field Parameters:								
Specific Conductance	--	mS/cm	0.503	0.503	0.571	1.165	0.416	0.416
Dissolved Oxygen	--	mg/L	1.18	1.18	0.71	0.24	0.35	0.35
Oxidation Reduction Potential	--	mV	181.6	181.6	25.1	-105.5	29	29
pH	--	pH units	5.83	5.83	6.29	6.77	6.68	6.68
Temperature	--	deg C	21.49	21.49	20.73	20.52	17.52	17.52
Turbidity	--	NTU	5.82	5.82	7.92	3.07	6.13	6.13
VOCs:								
Acetone	4000	ug/l	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon disulfide	4000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	700	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride (Dichloromethane)	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	1000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene (TCE)	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes, Total	10000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
SVOCs:								
Acenaphthene	2000	ug/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	10	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Anthracene	10	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	0.1	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	0.2	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	0.2	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	10	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	10	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	0.2	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzo(a,h)anthracene	0.3	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	1000	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	1000	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	0.4	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	20	ug/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	10	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	1000	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Inorganics:								
Antimony	0.006	mg/l	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Arsenic	0.05	mg/l	< 0.05	< 0.05	< 0.05	0.148	< 0.05	< 0.05
Barium	2.0	mg/l	0.101	0.0998	0.0766	0.33	0.0453	0.0516
Beryllium	0.004	mg/l	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	0.005	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.1	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Copper	1.3	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	0.2	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead	0.015	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Mercury	0.002	mg/l	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Nickel	0.1	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Selenium	0.05	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Thallium	0.002	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Vanadium	0.2	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Zinc	2.0	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

Notes:

RRS = Risk Reduction Standard
ug/L = micrograms per liter
mg/L = milligrams per liter
-- = RRS not applicable for this analyte

Prepared by/date: RJB 2/23/17

Checked by/date: RMB 2/27/17

Data Qualifier Definitions:

< = Not detected at or above the reported detection limit

BOLD = Exceeds the laboratory detection limit

Analyte concentration exceeds the Type 1 RRS

Table 3-3 Groundwater Analytical Results for Galliard Formation Wells Atlanta Gas Light Company Former Manufactured Gas Plant Site																											
		Location ID:	MW-12	MW-12	MW-19	MW-19	MW-202DR	MW-203	MW-205	MW-206	MW-207	MW-21	MW-22	MW-303	MW-304	MW-306D	MW-401D	MW-402D	MW-404DR	MW-408DR	MW-505D	MW-600	MW-600	MW-601	MW-602	MW-607	
		Sample Date:	1/24/2017	1/24/2017	1/25/2017	1/25/2017	1/25/2017	1/25/2017	1/25/2017	1/24/2017	1/24/2017	1/25/2017	1/25/2017	1/24/2017	1/24/2017	1/24/2017	1/26/2017	1/25/2017	1/26/2017	1/26/2017	1/26/2017	1/24/2017	1/25/2017	1/25/2017	1/25/2017	1/24/2017	1/26/2017
		Sample Type:	Sample	Duplicate	Sample	Duplicate	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Duplicate	Sample	Sample	Sample	Sample	
Type 1 RRS		Units																									
Field Parameters:																											
Specific Conductance	--	mS/cm	0.249	0.249	0.495	0.495	0.578	0.483	0.626	0.545	0.406	0.711	0.213	0.518	0.476	1.36	0.37	0.689	0.847	0.681	0.58	0.396	0.396	0.224	0.503	1.671	
Dissolved Oxygen	--	mg/L	0.03	0.03	1.47	1.47	0.22	0.3	0.08	1.38	0.49	0.15	1.83	0.14	0.27	0.38	1.49	0.52	0.31	0.22	0.27	0.55	0.55	0.16	0.21	0.07	
Oxidation Reduction Potential	--	mV	-29.3	-29.3	29.3	29.3	102.3	118.1	-73	-46.1	-17.7	20.2	2.7	-14.6	-36.3	-42.5	164.4	32.4	33.3	-39.8	-58.9	-100.5	-100.5	10.7	-11.8	-56.7	
pH	--	pH units	6.05	6.05	6.56	6.56	6.15	6.19	6.03	6.84	6.13	6.15	6.3	6.04	6.17	6.22	6.21	6.4	6.15	6.07	6.25	6.14	6.14	6.08	6.13	6.35	
Temperature	--	deg C	20.94	20.94	21.54	21.54	20.19	20.06	20.46	21.98	20.66	23.1	19.92	22.96	18.23	19.5	20.3	20.31	20.11	20.88	19.46	23.01	23.01	21.2	20.37	20.53	
Turbidity	--	NTU	0.88	0.88	8.32	8.32	1.54	0.36	2.79	1.05	2.19	0.32	1.32	0.36	2.13	1.13	1.56	6.89	0.88	7.54	1.37	6.83	6.83	4.27	3.76	20.9	
VOCs:																											
Acetone	4000	ug/l	< 5000	< 5000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 2500	< 2500	< 5000	< 50	< 50	
Benzene	5.0	ug/l	10000	10000	< 5.0	< 5.0	< 5.0	< 5.0	690	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	290	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	27000	27000	8200	< 5.0	< 5.0	
Carbon disulfide	4000	ug/l	< 500	< 500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 250	< 500	< 5.0	< 5.0	
Ethylbenzene	700	ug/l	2500	2500	< 5.0	< 5.0	< 5.0	< 5.0	110	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2700	2700	570	< 5.0	< 5.0	
Methylene chloride (Dichloromethane)	5.0	ug/l	< 500	< 500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 250	< 500	< 5.0	< 5.0	
Toluene	1000	ug/l	1700	1800	< 5.0	< 5.0	< 5.0	< 5.0	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	10000	10000	7300	< 5.0	< 5.0	
Trichloroethene (TCE)	5.0	ug/l	< 500	< 500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.8	< 5.0	< 5.0	< 5.0	< 5.0	10	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 250	< 500	< 5.0	< 5.0	
Xylenes, Total	10000	ug/l	2100	2100	< 5.0	< 5.0	< 5.0	< 5.0	110	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	9.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	3700	3700	2000	< 5.0	< 5.0	
SVOCs:																											
Acenaphthene	2000	ug/l	120	120	< 0.5	< 0.5	< 0.5	< 0.5	9.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	32	< 0.5	< 0.5	< 0.5	< 0.5	36	16	21	21	8.0	1.7	< 0.5	
Acenaphthylene	10	ug/l	9.9	9.3	< 1.0	< 1.0	< 1.0	< 1.0	6.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	74	79	33	< 1.0	< 1.0	
Anthracene	10	ug/l	2.9	2.8	0.24	0.16	< 0.05	< 0.05	3.6	< 0.05	< 0.05	0.078	< 0.05	0.12	0.48	< 0.05	< 0.05	< 0.05	< 0.05	0.92	0.32	3.3	3.4	3.1	0.15	0.1	
Benzo(a)anthracene	0.1	ug/l	0.056	0.058	0.095	0.056	< 0.05	< 0.05	0.92	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.41	0.5	0.15	< 0.05	0.14	
Benzo(a)pyrene	0.2	ug/l	< 0.05	< 0.05	0.082	0.051	< 0.05	0.073	0.33	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.23	0.26	< 0.05	< 0.05	0.096	
Benzo(b)fluoranthene	0.2	ug/l	< 0.1	< 0.1	0.12	< 0.1	< 0.1	< 0.1	0.27	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.20	0.23	< 0.1	< 0.1	0.1	
Benzo(g,h,i)perylene	10	ug/l	< 0.1	< 0.1	0.1	< 0.1	< 0.1	0.16	0.14	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.11	0.13	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	10	ug/l	< 0.05	< 0.05	0.056	< 0.05	< 0.05	0.092	0.13	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.085	0.11	< 0.05	< 0.05	0.056	
Chrysene	0.2	ug/l	< 0.05	< 0.05	0.075	< 0.05	< 0.05	0.055	0.69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.32	0.38	0.073	< 0.05	0.11	
Dibenzo(a,h)anthracene	0.3	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	1000	ug/l	0.43	0.39	< 0.1	< 0.1	< 0.1	< 0.1	4.8	< 0.1	< 0.1	< 0.1	< 0.1	0.18	0.51	< 0.1	< 0.1	< 0.1	< 0.1	0.24	0.53	1.6	1.8	1.2	< 0.1	0.75	
Fluorene	1000	ug/l	25	26	< 0.1	< 0.1	< 0.1	< 0.1	18	< 0.1	< 0.1	< 0.1	< 0.1	0.13	4.0	< 0.1	< 0.1	< 0.1	< 0.1	1.5	2.6	15	17	21	0.12	< 0.1	
Indeno(1,2,3-cd)pyrene	0.4	ug/l	< 0.05	< 0.05	0.069	< 0.05	< 0.05	0.17	0.12	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.079	0.092	< 0.05	< 0.05	< 0.05	
Naphthalene	20	ug/l	7000	7100	< 0.5	< 0.5	3.9	< 0.5	210	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	17	5400	5700	3100	< 0.5	< 0.5	
Phenanthrene	10	ug/l	16	16	0.051	< 0.05	< 0.05	< 0.05	24	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	5.5	1.1					

Table 3-4
Groundwater Analytical Results for Saprolite Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site

		Location ID:	MW-214	MW-306SAP	MW-310SAP	MW-311	MW-401SAP
		Sample Date:	1/25/2017	1/24/2017	1/26/2017	1/24/2017	1/27/2017
		Sample Type:	Sample	Sample	Sample	Sample	Sample
	Type 1 RRS	Units					
Field Parameters:							
Specific Conductance	--	mS/cm	0.292	1.521	0.411	0.102	0.24
Dissolved Oxygen	--	mg/L	0.27	2.2	0.6	0.12	0.77
Oxidation Reduction Potential	--	mV	-62	-9.9	132.4	11.9	241.6
pH	--	pH units	6.75	6.1	5.65	6.44	5.44
Temperature	--	deg C	20	19.15	19.95	20.73	16.46
Turbidity	--	NTU	0.56	8.49	0.29	8.06	0.69
VOCs:							
Acetone	4000	ug/l	< 50	< 50	< 50	< 50	< 50
Benzene	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon disulfide	4000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	700	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride (Dichloromethane)	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	1000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene (TCE)	5.0	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	7.1
Xylenes, Total	10000	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
SVOCs:							
Acenaphthene	2000	ug/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	10	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Anthracene	10	ug/l	< 0.05	0.055	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	0.1	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	0.2	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	0.2	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	10	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	10	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	0.2	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzo(a,h)anthracene	0.3	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	1000	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	1000	ug/l	< 0.1	0.2	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	0.4	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	20	ug/l	< 0.5	0.73	< 0.5	0.79	< 0.5
Phenanthrene	10	ug/l	< 0.05	0.14	< 0.05	< 0.05	< 0.05
Pyrene	1000	ug/l	< 0.05	0.067	< 0.05	< 0.05	< 0.05
Inorganics:							
Antimony	0.006	mg/l	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Arsenic	0.05	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Barium	2.0	mg/l	0.338	0.621	0.0639	0.00914	0.0813
Beryllium	0.004	mg/l	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	0.005	mg/l	< 0.005	< 0.005	< 0.005	0.0601	0.0184
Chromium	0.1	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Copper	1.3	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	0.2	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead	0.015	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Mercury	0.002	mg/l	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Nickel	0.1	mg/l	< 0.02	0.351	0.437	< 0.02	< 0.02
Selenium	0.05	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Thallium	0.002	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Vanadium	0.2	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Zinc	2.0	mg/l	< 0.02	< 0.02	< 0.02	0.0544	0.0332

Notes:
 RRS = Risk Reduction Standard
 ug/L = micrograms per liter
 mg/L = milligrams per liter
 -- = RRS not applicable for this analyte

Prepared by/date: RJB 2/23/17
 Checked by/date: RMB 2/27/17

Data Qualifier Definitions:
 < = Not detected at or above the reported detection limit
BOLD = Exceeds the laboratory detection limit
Analyte concentration exceeds the Type 1 RRS

Table 3-5
Groundwater Analytical Results for Transition Zone Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site

		Location ID:	MW-306TZ
		Sample Date:	1/24/2017
		Sample Type:	Sample
	Type 1 RRS	Units	
Field Parameters:			
Specific Conductance	--	mS/cm	0.808
Dissolved Oxygen	--	mg/L	1.04
Oxidation Reduction Potential	--	mV	-139.5
pH	--	pH units	6.74
Temperature	--	deg C	20.53
Turbidity	--	NTU	4.38
VOCs:			
Acetone	4000	ug/l	< 50
Benzene	5.0	ug/l	< 5.0
Carbon disulfide	4000	ug/l	< 5.0
Ethylbenzene	700	ug/l	< 5.0
Methylene chloride (Dichloromethane)	5.0	ug/l	< 5.0
Toluene	1000	ug/l	< 5.0
Trichloroethene (TCE)	5.0	ug/l	< 5.0
Xylenes, Total	10000	ug/l	7.9
SVOCs:			
Acenaphthene	2000	ug/l	15
Acenaphthylene	10	ug/l	< 1.0
Anthracene	10	ug/l	0.33
Benzo(a)anthracene	0.1	ug/l	< 0.05
Benzo(a)pyrene	0.2	ug/l	< 0.05
Benzo(b)fluoranthene	0.2	ug/l	< 0.1
Benzo(g,h,i)perylene	10	ug/l	< 0.1
Benzo(k)fluoranthene	10	ug/l	< 0.05
Chrysene	0.2	ug/l	< 0.05
Dibenzo(a,h)anthracene	0.3	ug/l	< 0.1
Fluoranthene	1000	ug/l	0.15
Fluorene	1000	ug/l	2.4
Indeno(1,2,3-cd)pyrene	0.4	ug/l	< 0.05
Naphthalene	20	ug/l	270
Phenanthrene	10	ug/l	1.3
Pyrene	1000	ug/l	0.15
Inorganics:			
Antimony	0.006	mg/l	< 0.006
Arsenic	0.05	mg/l	< 0.05
Barium	2.0	mg/l	0.72
Beryllium	0.004	mg/l	< 0.004
Cadmium	0.005	mg/l	< 0.005
Chromium	0.1	mg/l	< 0.01
Copper	1.3	mg/l	< 0.01
Cyanide	0.2	mg/l	< 0.01
Lead	0.015	mg/l	< 0.01
Mercury	0.002	mg/l	< 0.0002
Nickel	0.1	mg/l	< 0.02
Selenium	0.05	mg/l	< 0.02
Thallium	0.002	mg/l	< 0.002
Vanadium	0.2	mg/l	< 0.01
Zinc	2.0	mg/l	< 0.02

Notes:

RRS = Risk Reduction Standard

ug/L = micrograms per liter

mg/L = milligrams per liter

-- = RRS not applicable for this analyte

Prepared by/date: RJB 2/23/17

Checked by/date: RMB 2/27/17

Data Qualifier Definitions:

< = Not detected at or above the reported detection limit

BOLD = Exceeds the laboratory detection limit

Analyte concentration exceeds the Type 1 RRS

Table 3-6
Groundwater Analytical Results for Bedrock Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site

		Location ID:	MW-213	MW-306BR	MW-306BR	MW-308BR	MW-309BR	MW-310BR	MW-313	MW-315	MW-318	MW-319	MW-320	MW-325	MW-500BR	MW-503BR	MW-504BR	MW-507BR	MW-508BR	MW-509BR	MW-510BR	MW-511BR	MW-512BR	MW-513BR	
		Sample Date:	1/25/2017	1/24/2017	1/24/2017	1/31/2017	1/24/2017	1/26/2017	1/25/2017	1/26/2017	1/26/2017	1/27/2017	1/27/2017	1/25/2017	1/27/2017	1/24/2017	1/24/2017	1/27/2017	1/24/2017	1/24/2017	1/24/2017	1/25/2017	1/25/2017	1/26/2017	
		Sample Type:	Sample	Sample	Duplicate	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	
Type 1 RRS		Units																							
Field Parameters:																									
Specific Conductance	--	mS/cm	0.631	0.527	0.527	0.32	0.292	0.721	0.34	0.599	0.678	0.447	0.272	0.23	0.187	0.036	0.146	0.305	1.16	0.104	0.109	0.187	0.414	0.613	
Dissolved Oxygen	--	mg/L	0.17	0.67	0.67	5.99	0.13	1.81	0.19	0.2	0	0.02	0.34	0.18	0.27	2.77	0.51	1.35	0.68	0.51	0.34	0.53	0.55	0.21	
Oxidation Reduction Potential	--	mV	-43.5	-171.2	-171.2	29.2	-73	94.2	25	-47.3	-38.1	-97.9	-76.3	13.9	14.9	18	-5.2	99.1	-11.9	27.9	-51.5	-184.3	-95.3	-21.5	
pH	--	pH units	6.29	7.15	7.15	7.28	7.67	6.71	8.33	6.65	6.18	6.94	6.93	8.15	9.86	6.18	8.63	9.69	11.48	6.82	6.64	9.81	7.9	6.38	
Temperature	--	deg C	20.94	20.89	20.89	15.32	21.34	20.45	22.05	22.53	22.37	20.48	21.23	23.65	19.48	21.37	20.64	18.76	19.85	18.55	20.43	23.22	21.38	22.84	
Turbidity	--	NTU	6.57	0.69	0.69	1.76	0.57	9.1	1.63	4.5	8.8	9.75	2.51	1.26	1.84	6.71	9.51	2.35	0.65	5.4	4.61	0.83	0.7	0.76	
VOCs:																									
Acetone	4000	ug/l	< 500	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
Benzene	5.0	ug/l	7500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	470	< 5.0	< 5.0	< 5.0	5600	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	13	40	< 5.0	< 5.0	
Carbon disulfide	4000	ug/l	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	700	ug/l	1600	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	680	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	23	< 5.0	< 5.0	< 5.0	
Methylene chloride (Dichloromethane)	5.0	ug/l	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	1000	ug/l	180	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.4	< 5.0	< 5.0	< 5.0	
Trichloroethene (TCE)	5.0	ug/l	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Xylenes, Total	10000	ug/l	910	6.0	5.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	14	< 5.0	< 5.0	< 5.0	240	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	27	< 5.0	< 5.0	< 5.0	
SVOCs:																									
Acenaphthene	2000	ug/l	98	14	15	< 0.5	< 0.5	< 0.5	< 0.5	4.5	22	< 0.5	< 0.5	< 0.5	51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.1	0.5	< 0.5	3.7	
Acenaphthylene	10	ug/l	39	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Anthracene	10	ug/l	3.8	0.31	0.33	0.38	< 0.05	0.12	< 0.05	< 0.05	0.68	< 0.05	< 0.05	0.062	0.99	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.44	< 0.05	< 0.05	0.057	
Benzo(a)anthracene	0.1	ug/l	< 0.05	< 0.05	< 0.05	1.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.053	< 0.05	< 0.05	< 0.05	< 0.05	0.57	< 0.05	< 0.05	< 0.05	
Benzo(a)pyrene	0.2	ug/l	< 0.05	< 0.05	< 0.05	1.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.38	< 0.05	< 0.05	< 0.05 UJ	
Benzo(b)fluoranthene	0.2	ug/l	< 0.1	< 0.1	< 0.1	1.2	< 0.1	< 0.1	< 0.1	0.11	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.34	< 0.1	< 0.1	< 0.1	
Benzo(g,h,i)perylene	10	ug/l	< 0.1	< 0.1	< 0.1	0.62	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	10	ug/l	< 0.05	< 0.05	< 0.05	0.56	< 0.05	< 0.05	< 0.05	0.057	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.16	< 0.05	< 0.05	< 0.05	
Chrysene	0.2	ug/l	< 0.05	< 0.05	< 0.05	1.4	< 0.05	< 0.05	< 0.05	0.063	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.43	< 0.05	< 0.05	< 0.05	
Dibenzo(a,h)anthracene	0.3	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	1000	ug/l	0.57	0.11	0.12	1.8	< 0.1	< 0.1	< 0.1	< 0.1	0.26	< 0.1	< 0.1	< 0.1	0.32	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1.2	< 0.1	< 0.1	< 0.1	
Fluorene	1000	ug/l	18	2.7	2.9	0.17	< 0.1	< 0.1	< 0.1	< 0.1	4.6	< 0.1	< 0.1	0.15	9.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1.2	0.13	< 0.1	< 0.1	
Indeno(1,2,3-cd)pyrene	0.4	ug/l	< 0.05	< 0.05	< 0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05 UJ	< 0.05	< 0.05	0.15	< 0.05	< 0.05	< 0.05	
Naphthalene	20	ug/l	6200	310	380	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	320	< 0.5	< 0.5	< 0.5	1800	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 0.5	
Phenanthrene	10	ug/l	21	1.4	1.5	0.81	< 0.05	< 0.05	< 0.05	< 0.05	3.2	< 0.05	< 0.05	0.085	6.9	0.055	0.087	< 0.05	< 0.05	< 0.05	0.6	0.13	< 0.05	< 0.05	
Pyrene	1000	ug/l	0.62	0.14	0.15	2.7	< 0.05	< 0.05	< 0.05	0.12	0.33	3.3	0.051	< 0.05	0.38	0.079	< 0.05	< 0.05	< 0.05	< 0.05	1.8	< 0.05	< 0.05	0.068	
Inorganics:																									
Antimony	0.006	mg/l	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	
Arsenic	0.05	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Barium	2.0	mg/l	0.916	0.431	0.428	0.0727	0.402	0.299	0.205	0.422	0.516	0.576	0.238	0.0948	0.284	0.00652	0.18	0.0728	0.308	0.0261	0.019	0.0312	0.198	0.637	
Beryllium	0.004	mg/l	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	
Cadmium	0.005	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005												

Table 3-7
Detections and RRS Exceedances in the Alluvium Wells
January 2017 Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Parameter	Type 1 RRS	Number of Wells Sampled	Number of Detections	Range of Detected Concentrations	Number of Wells > Type1 RRS	Wells with Type 1 RRS Exceedances
Inorganics (mg/L)						
Antimony	0.006	4	0	--	0	--
Arsenic	0.05	4	1	0.148	1	MW-408S
Barium	2.0	4	4	0.0453 - 0.33	0	--
Beryllium	0.004	4	0	--	0	--
Cadmium	0.005	4	0	--	0	--
Chromium	0.1	4	0	--	0	--
Copper	1.3	4	0	--	0	--
Cyanide	0.2	4	0	--	0	--
Lead	0.015	4	0	--	0	--
Mercury	0.002	4	0	--	0	--
Nickel	0.1	4	0	--	0	--
Selenium	0.05	4	0	--	0	--
Thallium	0.002	4	0	--	0	--
Vanadium	0.2	4	0	--	0	--
Zinc	2.0	4	0	--	0	--
Semi Volatile Organic Compounds (µg/L)						
Acenaphthene	2000	4	0	--	0	--
Acenaphthylene	10	4	0	--	0	--
Anthracene	10	4	0	--	0	--
Benzo(a)anthracene	0.1	4	0	--	0	--
Benzo(a)pyrene	0.2	4	0	--	0	--
Benzo(b)fluoranthene	0.2	4	0	--	0	--
Benzo(g,h,i)perylene	10	4	0	--	0	--
Benzo(k)fluoranthene	10	4	0	--	0	--
Chrysene	0.2	4	0	--	0	--
Dibenzo(a,h)anthracene	0.3	4	0	--	0	--
Fluoranthene	1000	4	0	--	0	--
Fluorene	1000	4	0	--	0	--
Indeno(1,2,3-cd)pyrene	0.4	4	0	--	0	--
Naphthalene	20	4	0	--	0	--
Phenanthrene	10	4	0	--	0	--
Pyrene	1000	4	0	--	0	--
Volatile Organic Compounds (µg/L)						
Acetone	4000	4	0	--	0	--
Benzene	5.0	4	0	--	0	--
Carbon Disulfide	4000	4	0	--	0	--
Ethylbenzene	700	4	0	--	0	--
Methylene Chloride	5.0	4	0	--	0	--
Toluene	1000	4	0	--	0	--
Trichloroethylene	5.0	4	0	--	0	--
Xylenes, total	10000	4	0	--	0	--

Notes:

mg/L - milligrams per liter
ug/L - micrograms per liter
RRS - Risk Reduction Standard

Prepared by/date: RJB 2/23/17
Checked by/date: RMB 2/27/17

Table 3-8
Detections and RRS Exceedances in the Galliard Formation Wells
January 2017 Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Parameter	Type 1 RRS	Number of Wells Sampled	Number of Detections	Range of Detected Concentrations	Number of Wells > Type1 RRS	Wells with Type 1 RRS Exceedances
Inorganics (mg/L)						
Antimony	0.006	21	0	--	0	--
Arsenic	0.05	21	0	--	0	--
Barium	2.0	21	21	0.00772 - 0.654	0	--
Beryllium	0.004	21	0	--	0	--
Cadmium	0.005	21	0	--	0	--
Chromium	0.1	21	1	0.0114	0	--
Copper	1.3	21	1	0.0211	0	--
Cyanide	0.2	21	2	0.012 - 0.019	0	--
Lead	0.015	21	0	--	0	--
Mercury	0.002	21	0	--	0	--
Nickel	0.1	21	1	0.03	0	--
Selenium	0.05	21	0	--	0	--
Thallium	0.002	21	0	--	0	--
Vanadium	0.2	21	1	0.0112	0	--
Zinc	2.0	21	4	0.0458 - 0.147	0	--
Semi Volatile Organic Compounds (ug/L)						
Acenaphthene	2000	21	8	1.7 - 120	0	--
Acenaphthylene	10	21	4	6.6 - 79	2	MW-600, MW-601
Anthracene	10	21	12	0.078 - 3.6	0	--
Benzo(a)anthracene	0.1	21	6	0.056 - 0.92	4	MW-205, MW-600, MW-601, MW-607
Benzo(a)pyrene	0.2	21	5	0.073 - 0.33	2	MW-205, MW-600
Benzo(b)fluoranthene	0.2	21	4	0.1 - 0.27	2	MW-205, MW-600
Benzo(g,h,i)perylene	10	21	4	0.1 - 0.16	0	--
Benzo(k)fluoranthene	10	21	5	0.056 - 0.13	0	--
Chrysene	0.2	21	6	0.055 - 0.69	2	MW-205, MW-600
Dibenzo(a,h)anthracene	0.3	21	1	0.13	0	--
Fluoranthene	1000	21	9	0.18 - 4.8	0	--
Fluorene	1000	21	9	0.12 - 26	0	--
Indeno(1,2,3-cd)pyrene	0.4	21	4	0.069 - 0.17	0	--
Naphthalene	20	21	7	3.9 - 7100	5	MW-12, MW-205, MW-304, MW-600, MW-601
Phenanthrene	10	21	9	0.051 - 24	4	MW-12, MW-205, MW-600, MW-601
Pyrene	1000	21	15	0.051 - 6.1	0	--
Volatile Organic Compounds (ug/L)						
Acetone	4000	21	0	--	0	--
Benzene	5.0	21	5	290 - 27000	5	MW-12, MW-205, MW-304, MW-600, MW-601
Carbon Disulfide	4000	21	0	--	0	--
Ethylbenzene	700	21	4	110 - 2700	2	MW-12, MW-600
Methylene Chloride	5.0	21	0	--	0	--
Toluene	1000	21	4	130 - 10000	3	MW-12, MW-600, MW-601
Trichloroethylene	5.0	21	2	6.8 - 10	2	MW-21, MW-401D
Xylenes, total	10000	21	5	9.7 - 3700	0	--

Notes:

mg/L - milligrams per liter
ug/L - micrograms per liter
RRS - Risk Reduction Standard

Prepared by/date: RJB 2/23/17
Checked by/date: RMB 2/27/17

Table 3-9
Detections and RRS Exceedances in the Saprolite Wells
January 2017 Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Parameter	Type 1 RRS	Number of Wells Sampled	Number of Detections	Range of Detected Concentrations	Number of Wells > Type1 RRS	Wells with Type 1 RRS Exceedances
Inorganics (mg/L)						
Antimony	0.006	5	0	--	0	--
Arsenic	0.05	5	0	--	0	--
Barium	2.0	5	5	0.00914 - 0.621	0	--
Beryllium	0.004	5	0	--	0	--
Cadmium	0.005	5	2	0.0184 - 0.0601	2	MW-311, MW-401SAP
Chromium	0.1	5	0	--	0	--
Copper	1.3	5	0	--	0	--
Cyanide	0.2	5	0	--	0	--
Lead	0.015	5	0	--	0	--
Mercury	0.002	5	0	--	0	--
Nickel	0.1	5	2	0.351 - 0.437	2	MW-306SAP, MW-310SAP
Selenium	0.05	5	0	--	0	--
Thallium	0.002	5	0	--	0	--
Vanadium	0.2	5	0	--	0	--
Zinc	2.0	5	2	0.0332 - 0.0544	0	--
Semi Volatile Organic Compounds (ug/L)						
Acenaphthene	2000	5	0	--	0	--
Acenaphthylene	10	5	0	--	0	--
Anthracene	10	5	1	0.055	0	--
Benzo(a)anthracene	0.1	5	0	--	0	--
Benzo(a)pyrene	0.2	5	0	--	0	--
Benzo(b)fluoranthene	0.2	5	0	--	0	--
Benzo(g,h,i)perylene	10	5	0	--	0	--
Benzo(k)fluoranthene	10	5	0	--	0	--
Chrysene	0.2	5	0	--	0	--
Dibenzo(a,h)anthracene	0.3	5	0	--	0	--
Fluoranthene	1000	5	0	--	0	--
Fluorene	1000	5	1	0.2	0	--
Indeno(1,2,3-cd)pyrene	0.4	5	0	--	0	--
Naphthalene	20	5	2	0.73 - 0.79	0	--
Phenanthrene	10	5	1	0.14	0	--
Pyrene	1000	5	1	0.067	0	--
Volatile Organic Compounds (ug/L)						
Acetone	4000	5	0	--	0	--
Benzene	5.0	5	0	--	0	--
Carbon Disulfide	4000	5	0	--	0	--
Ethylbenzene	700	5	0	--	0	--
Methylene Chloride	5.0	5	0	--	0	--
Toluene	1000	5	0	--	0	--
Trichloroethylene	5.0	5	1	7.1	1	MW-401SAP
Xylenes, total	10000	5	0	--	0	--

Notes:

mg/L - milligrams per liter
ug/L - micrograms per liter
RRS - Risk Reduction Standard

Prepared by/date: RJB 2/23/17
Checked by/date: RMB 2/27/17

Table 3-10
Detections and RRS Exceedances in the Transition Zone Wells
January 2017 Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Parameter	Type1 RRS	Number of Wells Sampled	Number of Detections	Range of Detected Concentrations	Number of Wells > Type1 RRS	Wells with Type 1 RRS Exceedances
Inorganics (mg/L)						
Antimony	0.006	1	0	--	0	--
Arsenic	0.05	1	0	--	0	--
Barium	2.0	1	1	0.72	0	--
Beryllium	0.004	1	0	--	0	--
Cadmium	0.005	1	0	--	0	--
Chromium	0.1	1	0	--	0	--
Copper	1.3	1	0	--	0	--
Cyanide	0.2	1	0	--	0	--
Lead	0.015	1	0	--	0	--
Mercury	0.002	1	0	--	0	--
Nickel	0.1	1	0	--	0	--
Selenium	0.05	1	0	--	0	--
Vanadium	0.2	1	0	--	0	--
Zinc	2.0	1	0	--	0	--
Thallium	0.002	1	0	--	0	--
Semi Volatile Organic Compounds (ug/L)						
Acenaphthene	2000	1	1	15	0	--
Acenaphthylene	10	1	0	--	0	--
Anthracene	10	1	1	0.33	0	--
Benzo(a)anthracene	0.1	1	0	--	0	--
Benzo(a)pyrene	0.2	1	0	--	0	--
Benzo(b)fluoranthene	0.2	1	0	--	0	--
Benzo(g,h,i)perylene	10	1	0	--	0	--
Benzo(k)fluoranthene	10	1	0	--	0	--
Chrysene	0.2	1	0	--	0	--
Dibenzo(a,h)anthracene	0.3	1	0	--	0	--
Fluoranthene	1000	1	1	0.15	0	--
Fluorene	1000	1	1	2.4	0	--
Indeno(1,2,3-cd)pyrene	0.4	1	0	--	0	--
Naphthalene	20	1	1	270	1	MW-306TZ
Phenanthrene	10	1	1	1.3	0	--
Pyrene	1000	1	1	0.15	0	--
Volatile Organic Compounds (ug/L)						
Acetone	4000	1	0	--	0	--
Benzene	5.0	1	0	--	0	--
Carbon Disulfide	4000	1	0	--	0	--
Ethylbenzene	700	1	0	--	0	--
Methylene Chloride	5.0	1	0	--	0	--
Toluene	1000	1	0	--	0	--
Trichloroethylene	5.0	1	0	--	0	--
Xylenes, total	10000	1	1	7.9	0	--

Notes:

mg/L - milligrams per liter
ug/L - micrograms per liter
RRS - Risk Reduction Standard

Prepared by/date: RJB 2/23/17
Checked by/date: RMB 2/27/17

Table 3-11
Detections and RRS Exceedances in the Bedrock Wells
January 2017 Monitoring Event
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Parameter	Type 1 RRS	Number of Wells Sampled	Number of Detections	Range of Detected Concentrations	Number of Wells > Type1 RRS	Wells with Type 1 RRS Exceedances
Inorganics (mg/L)						
Antimony	0.006	21	0	--	0	--
Arsenic	0.05	21	0	--	0	--
Barium	2.0	21	21	0.00652 - 0.916	0	--
Beryllium	0.004	21	0	--	0	--
Cadmium	0.005	21	2	0.00591 - 0.0124	2	MW-500BR, MW-510BR
Chromium	0.1	21	0	--	0	--
Copper	1.3	21	0	--	0	--
Cyanide	0.2	21	0	--	0	--
Lead	0.015	21	0	--	0	--
Mercury	0.002	21	0	--	0	--
Nickel	0.1	21	0	--	0	--
Selenium	0.05	21	0	--	0	--
Thallium	0.002	21	0	--	0	--
Vanadium	0.2	21	0	--	0	--
Zinc	2.0	21	7	0.03 - 0.249	0	--
Semi Volatile Organic Compounds (ug/L)						
Acenaphthene	2000	21	8	0.5 - 98	0	--
Acenaphthylene	10	21	2	1.3 - 39	1	MW-213
Anthracene	10	21	9	0.057 - 3.8	0	--
Benzo(a)anthracene	0.1	21	3	0.053 - 1.5	2	MW-308BR, MW-510BR
Benzo(a)pyrene	0.2	21	2	0.38 - 1.5	2	MW-308BR, MW-510BR
Benzo(b)fluoranthene	0.2	21	3	0.11 - 1.2	2	MW-308BR, MW-510BR
Benzo(g,h,i)perylene	10	21	2	0.62 - 0.2	0	--
Benzo(k)fluoranthene	10	21	3	0.057 - 0.56	0	--
Chrysene	0.2	21	3	0.063 - 1.4	2	MW-308BR, MW-510BR
Dibenzo(a,h)anthracene	0.3	21	0	--	0	--
Fluoranthene	1000	21	6	0.11 - 1.8	0	--
Fluorene	1000	21	8	0.13 - 18	0	--
Indeno(1,2,3-cd)pyrene	0.4	21	2	0.15 - 0.5	1	MW-308BR
Naphthalene	20	21	5	11 - 6200	4	MW-213, MW-306BR, MW-318, MW-500BR
Phenanthrene	10	21	10	0.055 - 21	1	MW-213
Pyrene	1000	21	11	0.051 - 3.3	0	--
Volatile Organic Compounds (ug/L)						
Acetone	4000	21	0	--	0	--
Benzene	5.0	21	5	13 - 7500	5	MW-213, MW-318, MW-500BR, MW-510BR, MW-511BR
Carbon Disulfide	4000	21	0	--	0	--
Ethylbenzene	700	21	3	23 - 1600	1	MW-213
Methylene Chloride	5.0	21	0	--	0	--
Toluene	1000	21	2	6.4 - 180	0	--
Trichloroethylene	5.0	21	0	--	0	--
Xylenes, total	10000	21	5	6.0 - 910	0	--

Notes:

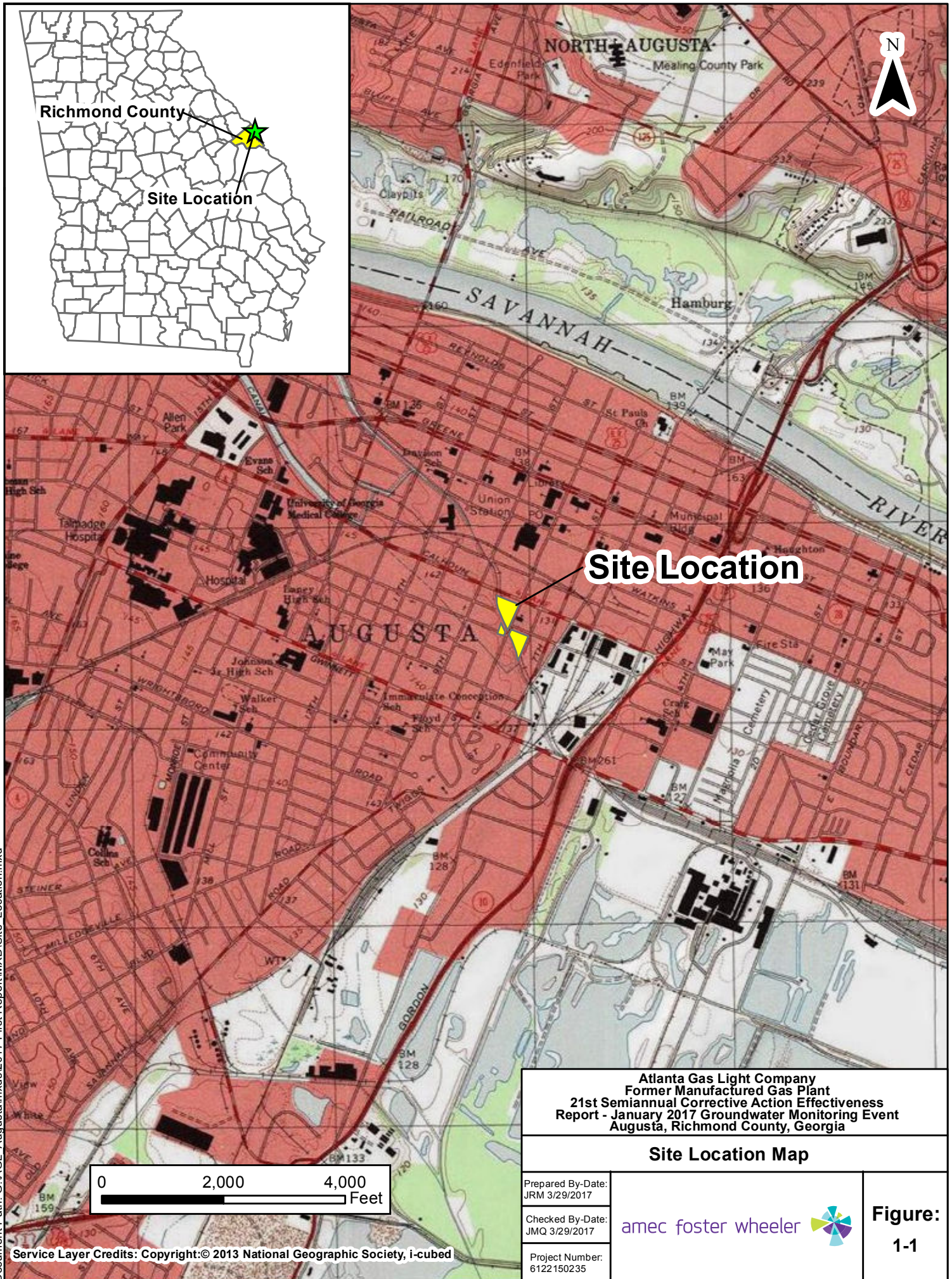
mg/L - milligrams per liter
ug/L - micrograms per liter
RRS - Risk Reduction Standard

Prepared by/date: RJB 2/23/17

Checked by/date: RMB 2/27/17

FIGURES

Document Path: G:\AGL_Augusta\mxd\2017 First Report\MXD\Site Location.mxd



Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

0 225 450 Feet

Prepared By-Date: JRM 5/16/2017
Checked By-Date: JMQ 5/16/2017
Project Number: 6122150235

amec foster wheeler 

Figure:
2-1



Legend

Alluvium Monitoring Well

124.89

Groundwater Elevation (Feet MSL)

Groundwater Elevation Contour (feet MSL)

Dashed where inferred

Groundwater Flow Direction

ISCO (In-Situ Chemical Oxidation) Area

ISS (In-Situ Solidification) Area

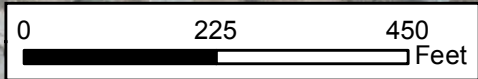
Parcels

Parcel Boundary

Notes:
MW-306S is in a Depth Discrete Sampling Port (DDSP) well.
*MW-408S was not used for contouring

MSL - Mean Sea Level

NM - Not Measured



Atlanta Gas Light Company
Former Manufactured Gas Plant
21st Semiannual Corrective Action Effectiveness
Report - January 2017 Groundwater Monitoring Event
Augusta, Richmond County, Georgia

Groundwater Elevation Map for the Alluvium
January 23, 2017

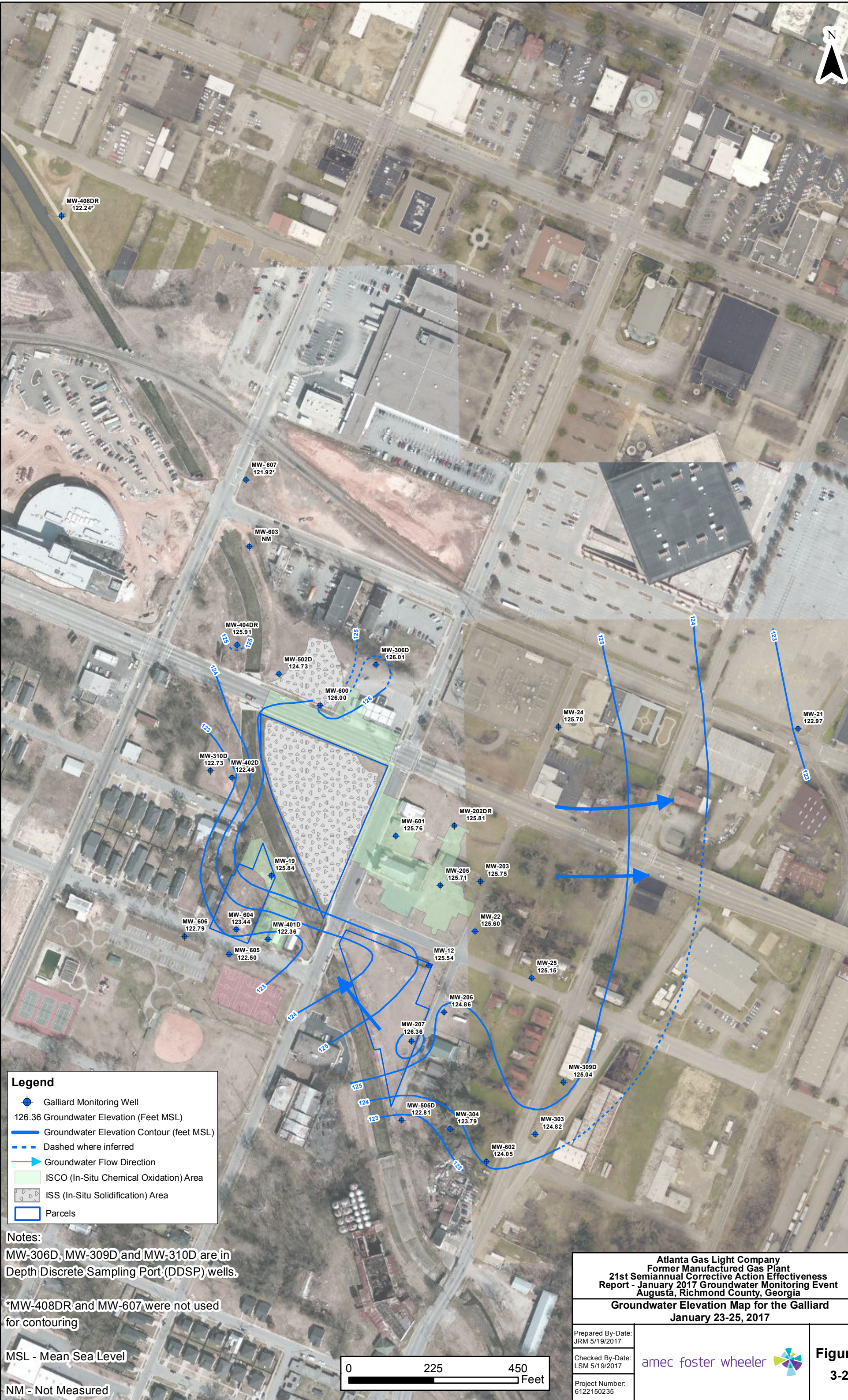
Prepared By-Date:
CLS 5/19/2017

Checked By-Date:
LSM 5/19/2017


Project Number:
6122150235

amec foster wheeler


Figure:
3-1





Legend


 Galliard Monitoring Well


126.36 Groundwater Elevation (Feet MSL)


 Groundwater Elevation Contour (feet MSL)

 Dashed where inferred

 Groundwater Flow Direction

 ISCO (In-Situ Chemical Oxidation) Area

 ISS (In-Situ Solidification) Area

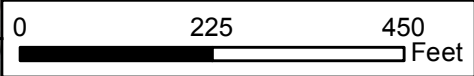
 Parcels

Notes:
MW-306D, MW-309D and MW-310D are in Depth Discrete Sampling Port (DDSP) wells.

*MW-408DR and MW-607 were not used for contouring

MSL - Mean Sea Level

NM - Not Measured



Atlanta Gas Light Company
Former Manufactured Gas Plant
21st Semiannual Corrective Action Effectiveness
Report - January 2017 Groundwater Monitoring Event
Augusta, Richmond County, Georgia

Groundwater Elevation Map for the Galliard
January 23-25, 2017

Prepared By-Date:
JRM 5/19/2017

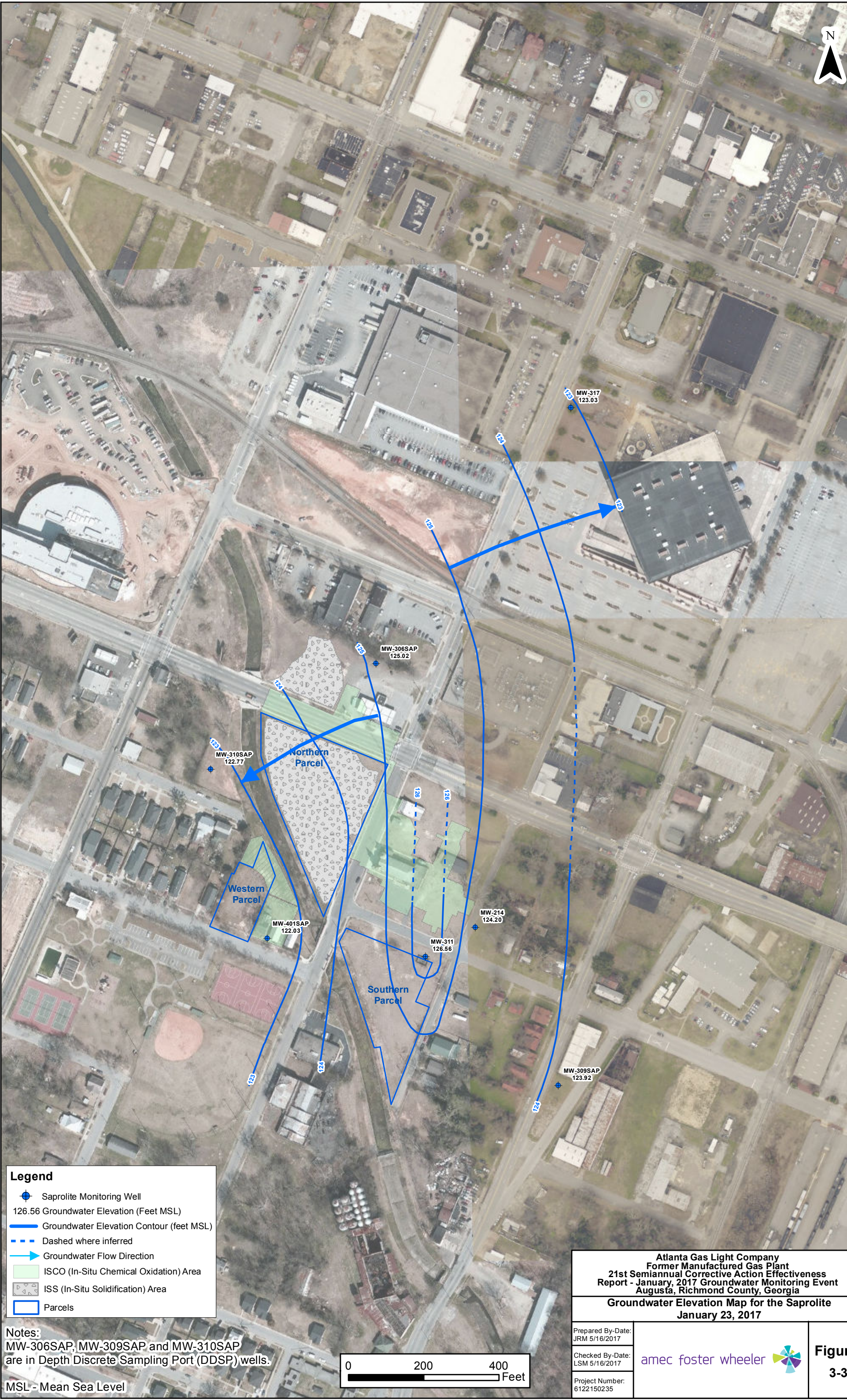
Checked By-Date:
LSM 5/19/2017

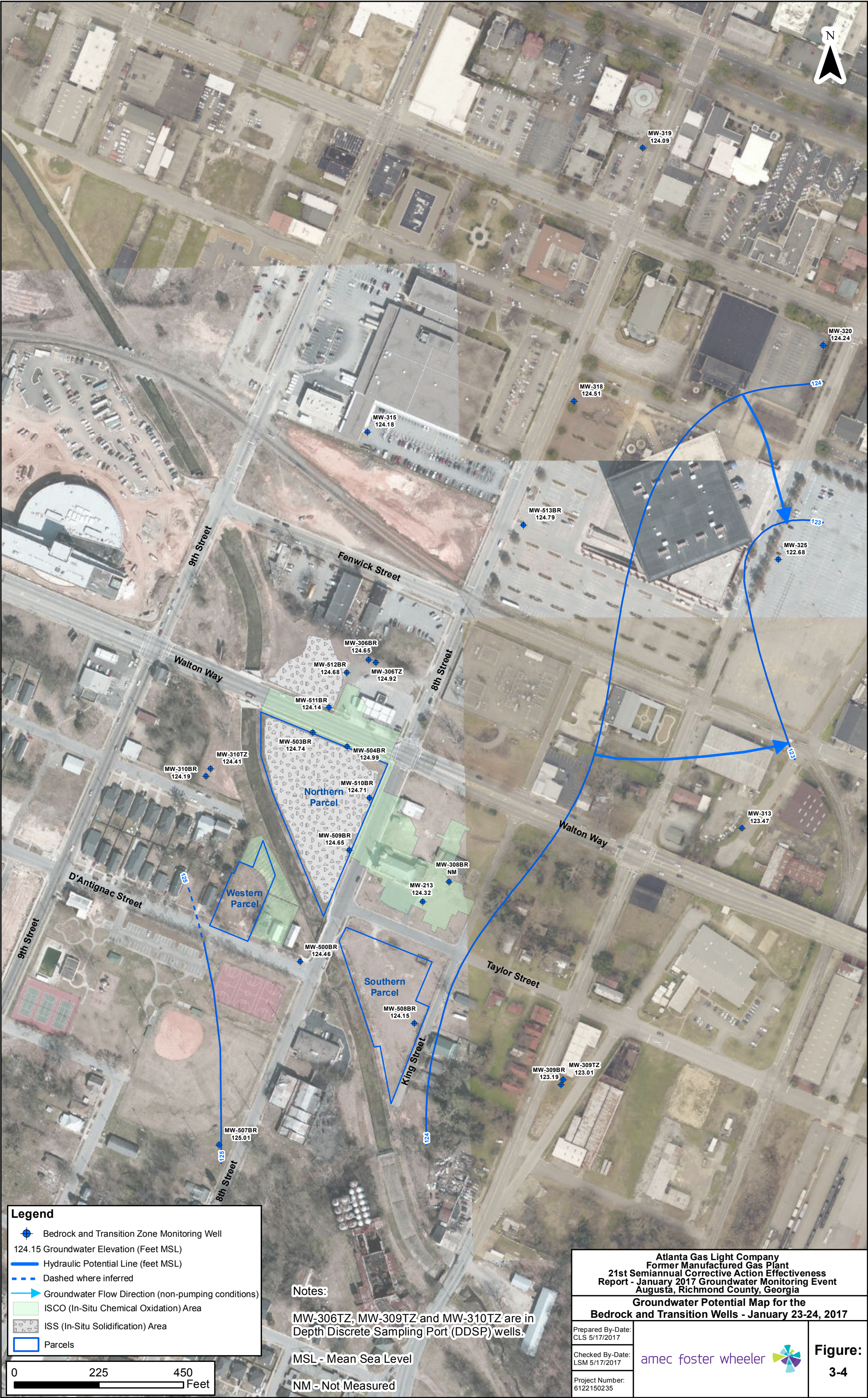
Project Number:
6122150235

amec foster wheeler



Figure:
3-2







MW-408S	1/26/2017
Inorganics, mg/L	
Arsenic	0.148

Legend

Alluvium Monitoring Well

MW in Depth Discrete Sampling Port

ISCO (In-Situ Chemical Oxidation) Area

ISS (In-Situ Solidification) Area

Parcels

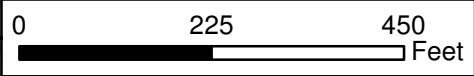
NE

No Type 1 RRS Exceedances

NS

Not Sampled

Notes:
MW-306S is in a Depth Discrete Sampling Port (DDSP) Well.
mg/L - Milligrams/Liter



Atlanta Gas Light Company
Former Manufactured Gas Plant
21stSemiannual Corrective Action Effectiveness
Report - January 2017 Groundwater Monitoring Event
Augusta, Richmond County, Georgia

Type 1 RRS Exceedances for the Alluvium Wells
January 2017

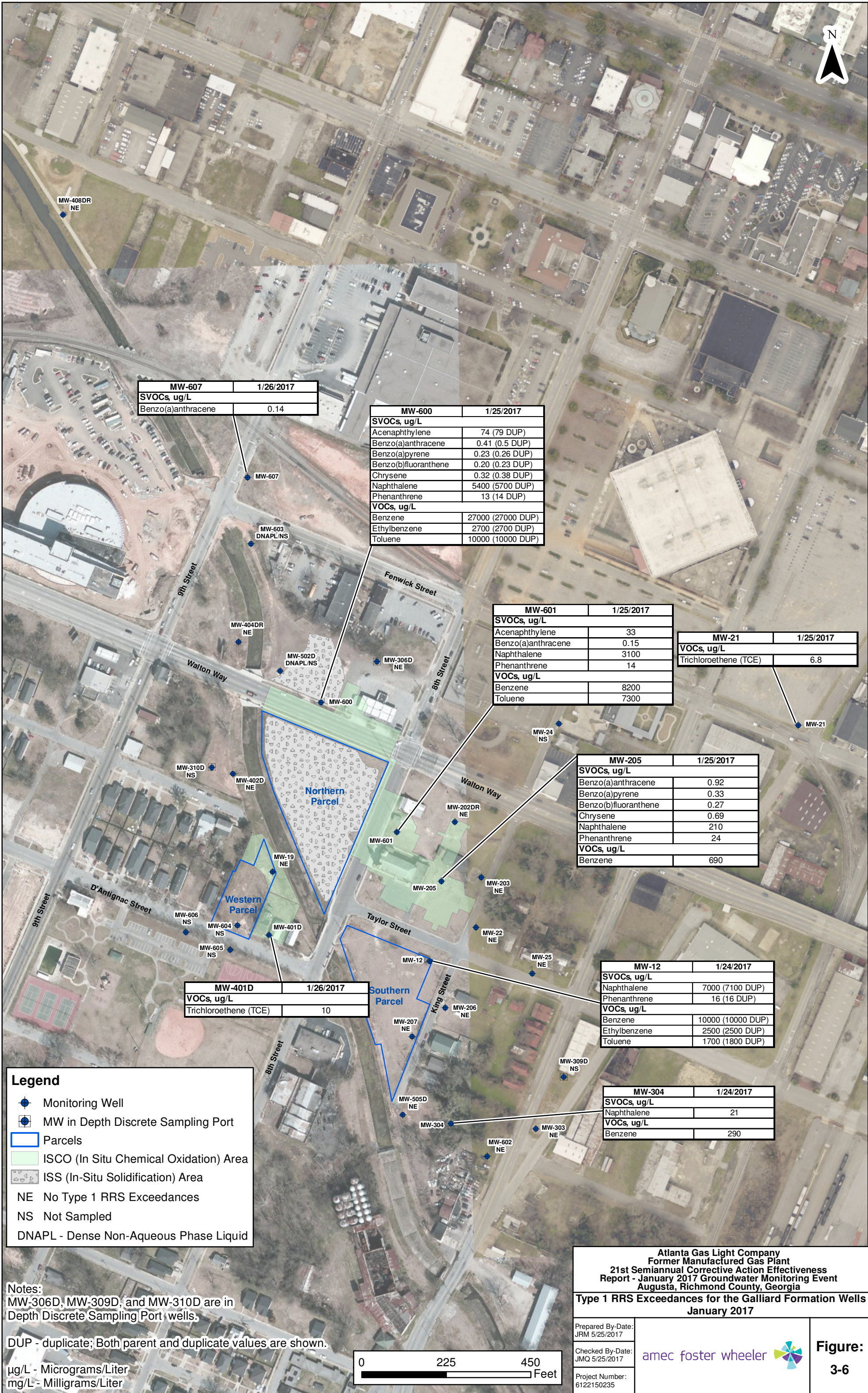
Prepared By-Date:
RD 5/25/2017

Checked By-Date:
LSM 5/25/2017

Project Number:
6122150235

amec foster wheeler

Figure:
3-5





Atlanta Gas Light Company
Former Manufactured Gas Plant
21st Semiannual Corrective Action Effectiveness
Report - January 2017 Groundwater Monitoring Event
Augusta, Richmond County, Georgia

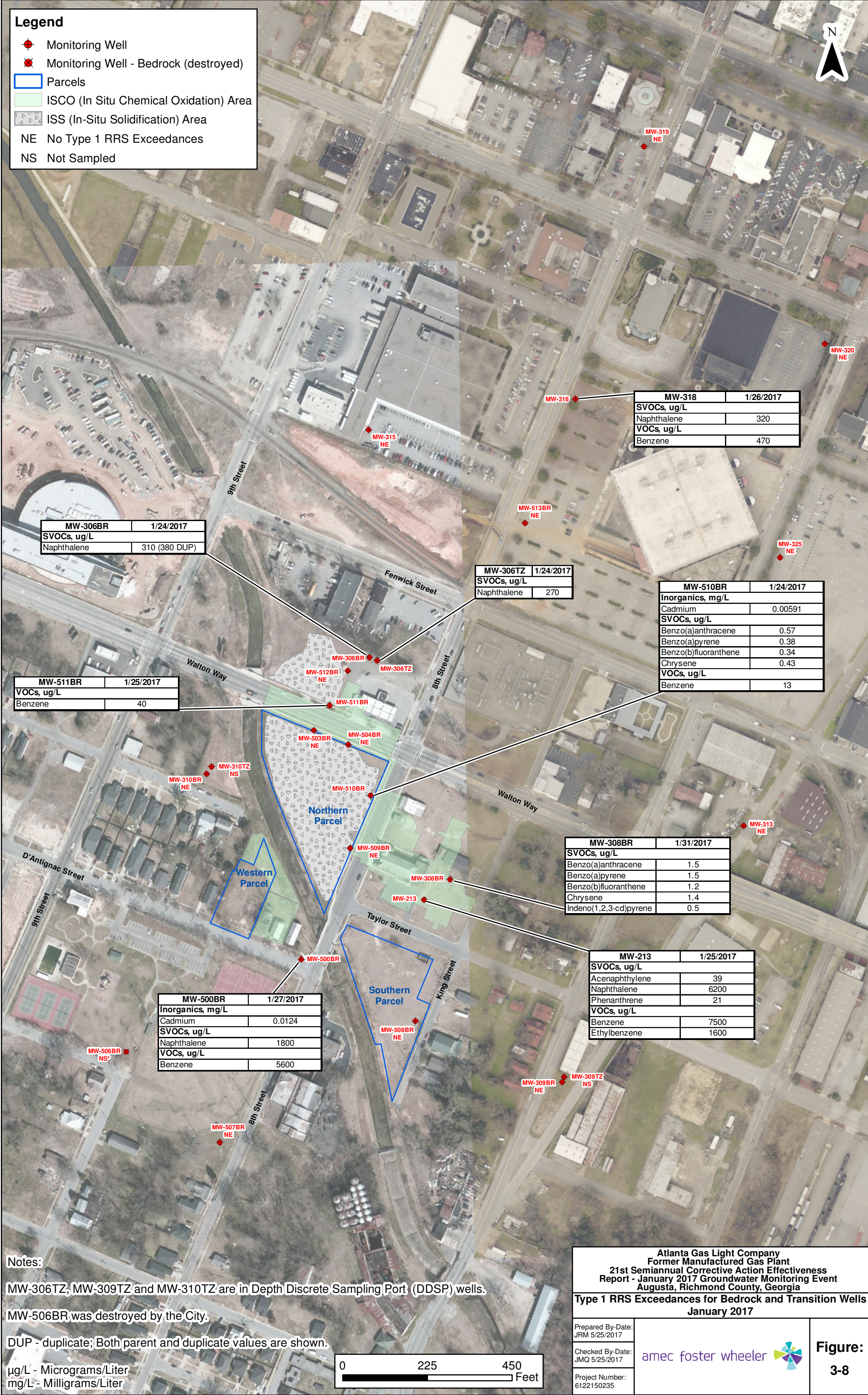
Type 1 RRS Exceedances for the Saprolite Wells
January 2017

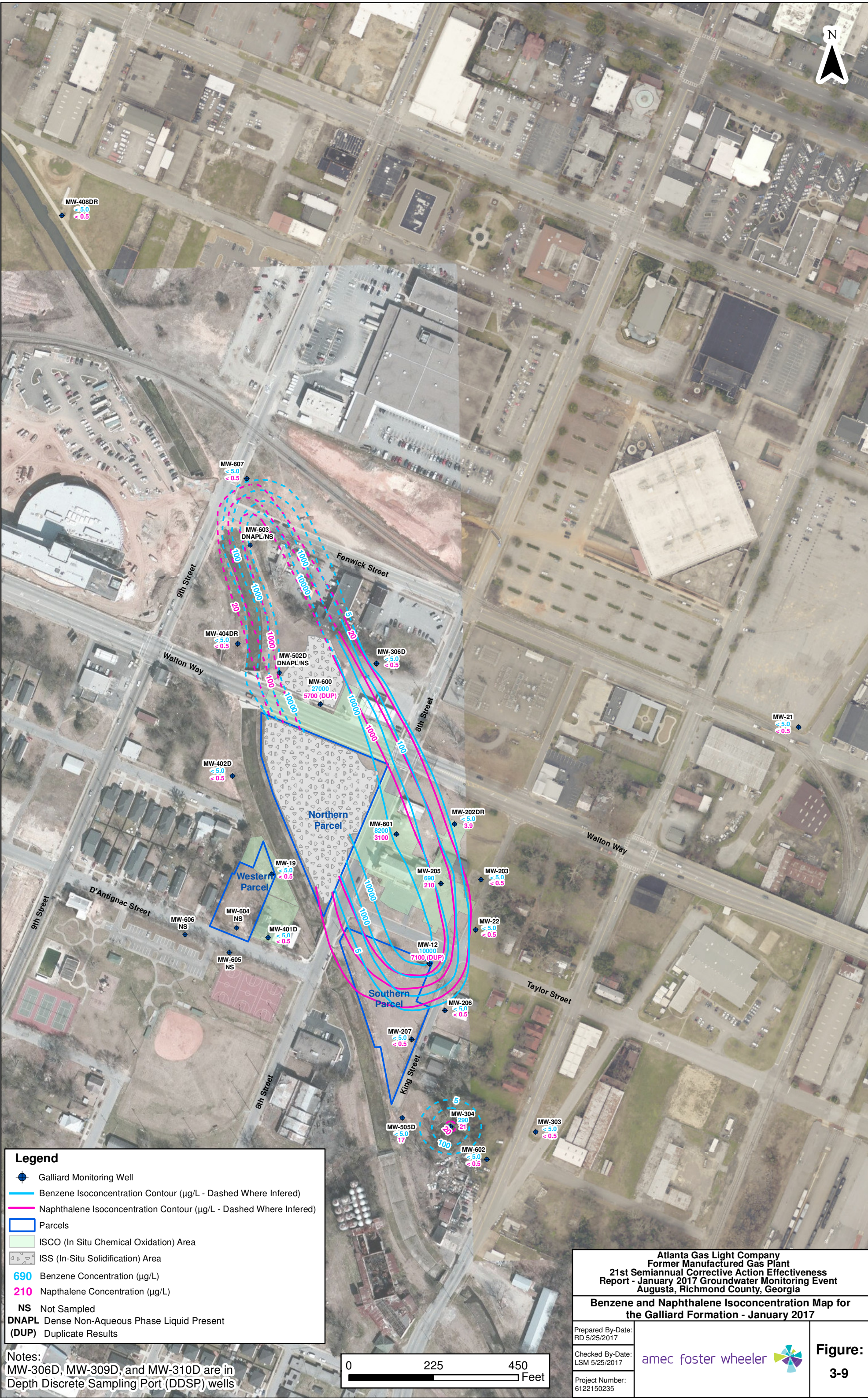
Prepared By-Date:
JRM 5/25/2017
Checked By-Date:
JMQ 5/25/2017
Project Number:
6122150235

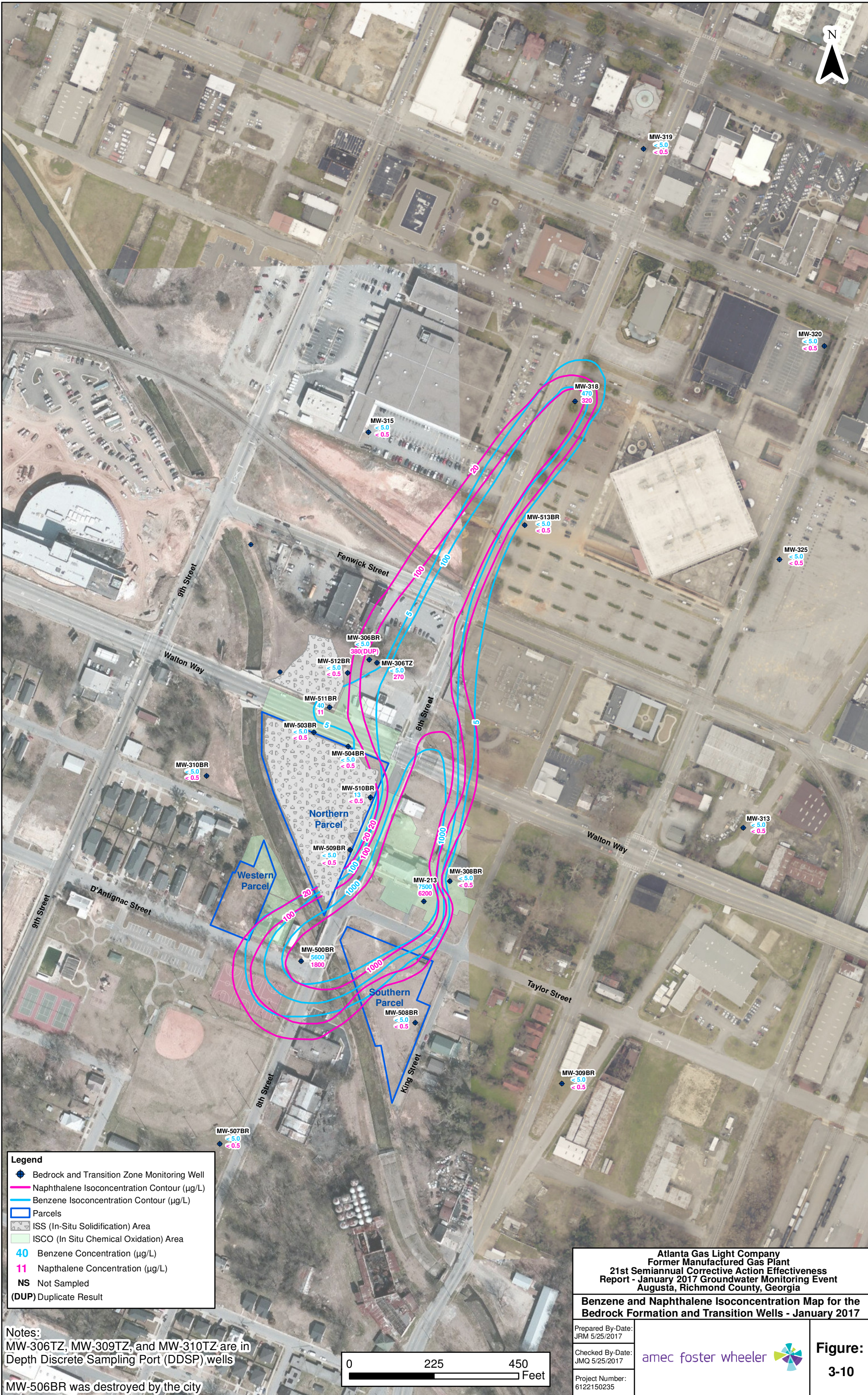
amec foster wheeler

Figure:
3-7

Document Path: G:\AGL_Augusta\mxds\2017 First Report\MXD\RRS_Exceedances_Bedrock_and_Transition_Zone.mxd







APPENDIX A
GROUNDWATER SAMPLING LOG SHEETS

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler. E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ☒ 1ST QUARTER ☐ 2ND QUARTER ☐ 3RD QUARTER ☐ 4TH QUARTER

MONITORING WELL TYPE: A Standard Compliance Background Extraction

WELL ID: MW-12-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic

Product In Well: Yes / No: NA (ft)

WELL DIAMETER: 2'

DEPTH TO WATER: 5.77 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 24.99

WATER COLUMN HEIGHT: 19.22

PURGE VOLUME: 9.40

Top of Screened interval (btoc): 20

Screen length: 10

Tubing/Pump Intake Depth 22

Arrived at: 1237

Initial PID NA

Bailing PID = NA

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

[illegible]

SAMPLE DATE: 1/24/17
SAMPLE TIME: 1332

CONTAINER		
-----------	--	--

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500-250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	Warm Sunny Clear
----------	------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: <i>Nicholas McMillan</i>	OBSERVER: <i>—</i>
-----------------------------------	--------------------

WEATHER:	Warm Clear - DRY	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

GENERAL INFORMATION	
WEATHER:	Sunny 65°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Jeff Moore
OBSERVER:	Nick McMillen

GENERAL INFORMATION	
WEATHER:	Cold (~45°F) Sunny + Clear
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Nicholas McMillan
OBSERVER:	—

OBSERVER: Nick Miller

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST QUARTER 2ND QUARTER 3RD QUARTER 4TH QUARTER

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-203-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic

Product In Well: Yes / No: No (ft)

WELL DIAMETER: 2¹¹

DEPTH TO WATER: 4.99 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 26.51

WATER COLUMN HEIGHT: 21.52

PURGE VOLUME: $3.5 \times 3 = 10.5$ or Low Flow

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: NA

Top of Screened interval (btoc): 221-26

Screen length: 4'

Tubing/Pump Intake Depth 24'

Arrived at: NA

Initial PID NA

Bailing PID = NA

[illegible]

SAMPLE DATE: 1-25-17
SAMPLE TIME: 8:40

SAMPLE TIME: 8:40

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION	
WEATHER:	Sunny 50°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Jeff Moore	OBSERVER: Nick McMillan

GENERAL INFORMATION	
WEATHER:	Warm (~70°F) Sunny with light cloud cover
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Nicholas McMillan	OBSERVER: —

GENERAL INFORMATION	
WEATHER:	Sunny 65°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Jeff Moore
OBSERVER:	Nick McMillan

GENERAL INFORMATION	
WEATHER:	Cool Clear and Sunny
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Nicholas McMillan	OBSERVER: —

WEATHER:	Warm (~65°F) Sunny + Clear
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Nicholas McMillan
OBSERVER:	—

GENERAL INFORMATION	
WEATHER:	Cool (~55°F) Sunny + Clear
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Nicholas McMillan	OBSERVER: —

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

WEATHER:	Sunny 60°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Jeff Moore
OBSERVER:	Nick McMillan

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ☒ 1ST QUARTER ☐ 2ND QUARTER ☐ 3RD QUARTER ☐ 4TH QUARTER

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-306BR-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic pump

Product In Well: Yes / No: _____ (ft)

WELL DIAMETER:

DEPTH TO WATER: 7.16 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 79.20

WATER COLUMN HEIGHT: 72.04

PURGE VOLUME:

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: DUP-2-0117

Time 1200

Top of Screened interval (btoc): _____

Screen length:

Tubing/Pump Intake Depth 75

Arrived at: 1505

Initial PID _____

Bailing PID = _____

[illegible]

NOTES: Collect DW-2 at this location

SAMPLE DATE: 1/24/17

SAMPLE TIME: 1617

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500-250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	Clear + Sunny. Temp 70°F
----------	--------------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: Daniel Howard

OBSERVER:

WEATHER:	Clear & Sunny, Temp 55°F	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Daniel Howard	OBSERVER:

GENERAL INFORMATION	
WEATHER:	Clear & Sunny, Temp 60°F
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Daniel Howard
OBSERVER:	

WEATHER:	Clear + Sunny, Temp 65°F	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Daniel Howard	OBSERVER:

GENERAL INFORMATION	
WEATHER:	Sunny 50°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Jeff Moore	OBSERVER:

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

WEATHER:	Clear + Sunny, Temp 65°F	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Daniel Howard	OBSERVER:

GENERAL INFORMATION	
WEATHER:	Clear, Sunny, Temp 65°F
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Daniel Howard
OBSERVER:	

OBSERVER: _____

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

WEATHER:	Sunny 65°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Jeff Moore
OBSERVER:	Nick Mammillan

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST QUARTER 2ND QUARTER 3RD QUARTER 4TH QUARTER

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-318-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic

Product In Well: Yes / (No) _____ (ft)

WELL DIAMETER: 4"

DEPTH TO WATER: 6.24 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 82.40

WATER COLUMN HEIGHT: 81.16

PURGE VOLUME: 171.2

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: NA

Top of Screened interval (btoc): 62

Screen length: 15

Tubing/Pump Intake Depth 70

Arrived at: 1452

Initial PID NA

Bailing PID = NA

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1525	—	0.77	43.5	5.08	0.960	23.74	155	300 ()	6.00
1535	0.75	0.17	23.9	5.14	0.814	23.38	120	300	6.06
1545	1.5	0.23	7.0	5.27	0.766	23.22	98.5	300	6.06
1555	2.25	0.15	-1.8	5.41	0.733	23.72	71.5	300	6.06
1605	3.0	0.05	-6.3	5.48	0.720	23.37	92.7	300	6.06
1217	22	0.01	-29.5	6.08	0.675	22.37	22.1	300	6.11
1237	23.6	0.01	-32.1	6.08	0.677	22.34	21.6	300	6.12
1340	29.5	0.00	-35.8	6.12	0.680	22.26	18.9	300	6.15
1411	32.5	0.00	-37.8	6.20	0.674	22.38	13.7	300	6.16
1421	34.0	0.00	-37.8	6.17	0.679	22.34	11.2	300	6.15
1431	34.75	0.00	-38.1	6.18	0.678	22.37	8.80	300	6.15
1435	Sample								
NOTES: * <u>Booster cleaned up Monday. Water pumping out with brown color & smells like manure. Could not finish well. Retry 1/26/17. Pumping resumed at 0915 on 1/26/17. Final sample was clear but still had odor.</u>									

SAMPLE DATE: 1/26/17

SAMPLE TIME: 1435

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	<u>Warm (~70°F) Sunny w/ light clouds</u>
SHIPPED VIA:	<u>Delivered/Shipped to AES laboratory</u>
SHIPPED TO:	<u>AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340</u>
SAMPLER:	<u>Nicholas McMillan</u>
OBSERVER:	<u>—</u>

GENERAL INFORMATION	
WEATHER:	Cool (~50°F) Sunny with light cloud coverage
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Nicholas McMillan
OBSERVER:	—

GENERAL INFORMATION	
WEATHER:	Cold (~40°F) Sunny & clear
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Nicholas McMillan
OBSERVER:	—

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

OBSERVER:

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ☒ 1ST QUARTER ☐ 2ND QUARTER ☐ 3RD QUARTER ☐ 4TH QUARTER

MONITORING WELL TYPE: ☐ Standard ☐ Compliance ☐ Background ☐ Extraction

WELL ID: MW-4015-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic pump

DUP./REP. OF: DUP-4-0117

Top of Screened interval (btoc):_____

Screen length: _____

Tubing/Pump Intake Depth 17

Arrived at: 1325

Initial PID _____

Bailing PID = _____

Product In Well: Yes / No: _____ (ft)

WELL DIAMETER: 2"

DEPTH TO WATER: 12.0 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 19.40

WATER COLUMN HEIGHT: 7.4

PURGE VOLUME: _____

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

[illegible]

NOTES: Collected DUP-4-0117 (Time 1200)

SAMPLE DATE: 1/26/17

SAMPLE TIME: 1432

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	Clear, Sunny + Breezy; Temp 60°F
----------	----------------------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: Daniel Howard

OBSERVER:

GENERAL INFORMATION	
WEATHER:	Clear & Cold, Temp 42°F
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Daniel Howard
OBSERVER:	

WEATHER:	COLD - CLEAR - DRY	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

WEATHER:	COOL - CLEAR - DRY	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

GENERAL INFORMATION	
WEATHER:	COOL - Clear - HUMID
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: EVER GUILLEN	OBSERVER:

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

WEATHER:	Sunny 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

WEATHER:	COLD-CLEAR-DRY		
SHIPPED VIA:	Delivered/Shipped to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	EVER GUINN	OBSERVER:	

WEATHER:	COOL- Clear- HUMID	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

WEATHER:	COOL - CLEAR - HUMID	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	EVER GUILLEN	OBSERVER:

OBSERVER:

WEATHER:	Sunny 60°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Murre	OBSERVER: Nick McMillan

GENERAL INFORMATION	
WEATHER:	Sunny 50°
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER: Jeff Moore	OBSERVER: Dangel Howard

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler. E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST QUARTER 2ND QUARTER 3RD QUARTER 4TH QUARTER

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-508BR

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic

Product In Well: Yes / No: 1/0 (ft)

WELL DIAMETER: 4"

DEPTH TO WATER: 9.10 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 73.7

WATER COLUMN HEIGHT: 64.6'

PURGE VOLUME: 31.6 or low flow

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: NA

Top of Screened interval (btoc): 70'

Screen length: 16' 11/2

Tubing/Pump Intake Depth 74' 72'

Arrived at: 1053

Initial PID NA

Bailing PID = NA

[illegible]

NOTES:

White sediment being pumped out of well initially

SAMPLE DATE: 1/24/16

SAMPLE TIME: 1148

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	Warm Clear + Sunny
----------	--------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: *Nicholas McMillan*

OBSERVER: —

WEATHER:	COLD - CLOUDY - HUMID (WET)		
SHIPPED VIA:	Delivered/Shipped to AES laboratory		
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340		
SAMPLER:	EVER GUILLÉN	OBSERVER:	

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT:	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
-----------------	-------------	-------------	-------------	-------------

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-510BR-0117

WELL MATERIAL: PVC

SAMPLE METHOD: PERISTALTIC

Product In Well: Yes / No: No (ft)

WELL DIAMETER: 6"

DEPTH TO WATER: 6.09 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 66.07

WATER COLUMN HEIGHT: $60.03 \times 1.47 = 88.24 \times 3 = 264.72$

PURGE VOLUME: 264.73

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: _____

Top of Screened interval (btoc):_____

Screen length:

Tubing/Pump Intake Depth 61.0'

Arrived at:

Initial PID

Bailing PID = _____

[illegible]

NOTES:

STRONG PRODUCT ODOR FROM WATER BUT NO PRODUCT NOTED. ●

SOME PRODUCT ON TUBING @ WELL BOTTOM - WELL WALLS ARE SMEARED W/PRODUCT

SAMPLE DATE: 1-24-17

SAMPLE TIME: 1350

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	COOL - CLEAR - HUMID
----------	----------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: EVER GUILLEN

OBSERVER:

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT:	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
-----------------	-------------	-------------	-------------	-------------

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-511RR-0117

WELL MATERIAL: PVC

SAMPLE METHOD: Peristaltic Pump

Product In Well: Yes / No: _____ (ft)

WELL DIAMETER: 6"

DEPTH TO WATER: 6.68 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 61.05

WATER COLUMN HEIGHT: 54.37

PURGE VOLUME:

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

DUP./REP. OF: _____

Top of Screened interval (btoc):_____

Screen length:_____

Tubing/Pump Intake Depth 56

Arrived at: 1355

Initial PID

Bailing PID = _____

[illegible]

SAMPLE DATE: 1/25/17
SAMPLE TIME: 1457

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	Clear + Sunny, Temp 73°F
----------	--------------------------

SHIPPED VIA:	Delivered/Shipped to AES laboratory
--------------	-------------------------------------

SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
-------------	--

SAMPLER: Daniel Howard

OBSERVER:

OBSERVER:

WEATHER:	Pthly Cldy 65°	
SHIPPED VIA:	Delivered/Shipped to AES laboratory	
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340	
SAMPLER:	Jeff Moore	OBSERVER: Nick McMillan

GENERAL INFORMATION	
WEATHER:	Clear & Sunny, Temp 70°F
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	Daniel Howard
OBSERVER:	

OBSERVER: Nick McMillan

PROJECT NAME: AGL-
Augusta, Augusta, GA

FIELD SAMPLING REPORT

Project Number: 6122-15-0235

Amec Foster Wheeler, E&I

1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: 1ST QUARTER 2ND QUARTER 3RD QUARTER 4TH QUARTER

MONITORING WELL TYPE: Standard Compliance Background Extraction

WELL ID: MW-607

WELL MATERIAL: PVC

SAMPLE METHOD: PERISTALTIC

Product In Well: Yes / No: No (ft)

WELL DIAMETER: 2"

DEPTH TO WATER: 8.58 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 28.66

WATER COLUMN HEIGHT: 20.08 x 0.17 = 3.41 x 3 = 10.24

PURGE VOLUME: 10.24

DUP./REP. OF: _____

Top of Screened interval (btoc): _____

Screen length: _____

Tubing/Pump Intake Depth 25.0'

Arrived at: _____

Initial PID _____

Bailing PID = _____

[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 955	0.25	1.02	-57.5	6.43	1.662	19.75	38.3	200 ()	8.79
1000	0.5	0.59	-56.9	6.45	1.638	19.64	52.7	200	9.16
1010	0.75	0.30	-57.3	6.46	1.618	19.81	37.8	100	9.31
1020	1.0	0.20	-54.4	6.46	1.626	19.71	23.4	100	9.47
1028	2.0	0.14	-64.9	6.43	1.627	20.30	18.3	500	10.41
1036	3.0	0.18	-61.0	6.42	1.626	20.33	23.7	500	12.62
1044	4.0	0.21	-63.5	6.40	1.629	20.61	42.8	500	14.97
1052	5.0	0.08	-60.1	6.39	1.619	21.12	41.6	500	15.59
1100	6.0	0.08	-67.6	6.39	1.633	21.14	37.9	500	15.97
1116	8.0	0.07	-62.9	6.39	1.627	21.49	31.2	500	16.23
1132	10.0	0.06	-57.2	6.35	1.672	20.54	28.7	500	16.48
1142	10.5	0.07	-56.7	6.35	1.671	20.53	20.9	200	16.54
1150	COLLECT SAMPLE								
NOTES:	WATER LEVEL DRAWS DOWN @ LOW FLOW - WILL INCREASE FLOW RATE AND PURGE 3-WELL VOLUMES BEFORE COLLECTING SAMPLE - TURBIDITY IS HIGH - SLOWED FLOW RATE BEFORE COLLECTING SAMPLE (TO REDUCE TURBIDITY) - NOTE TURBIDITY @ SAMPLING = 14.3 NTUS								

SAMPLE DATE: 1-26-17

SAMPLE TIME: 1150

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020/ 7470A	Total Metals & Hg
40 ml vial	2	HCL	8260	VOC list
1 L Amber	2	None	8270C SIM	PAHs
500 250 ml poly	1	NaOH	9014	CN

GENERAL INFORMATION

WEATHER:	<u>Cold - Clear - Humid</u>
SHIPPED VIA:	Delivered/Shipped to AES laboratory
SHIPPED TO:	AES Laboratories, 3785 Presidential Parkway, Atlanta, GA 30340
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

APPENDIX B
LABORATORY ANALYTICAL REPORTS



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 03, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701M28

Analytical Environmental Services, Inc. received 15 samples on 1/26/2017 10:11:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1701m28

Date: 1/25/17 Page 1 of 32

COMPANY: Amec Foster Wheeler		ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers						
PHONE: 770-421-3400		FAX: 770-421-3486		<div style="display: flex; flex-direction: column; align-items: center;"> <div>VOC 1:1:1 8260B</div> <div>PAHs 8270C SIM</div> <div>Tot Metals + Hg 6020/17470A</div> <div>CN 9014</div> </div>										REMARKS								
SAMPLED BY: J Moore, D Howard, E Guillen, N McMillan		SIGNATURE: Daniel Howard																				
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H	I	N	Na	OH	PRESERVATION (See codes)										
1	TB-01-0117	1/24/17	0900	X		W	2											2				
2	MW-509BR-0117		1105	X		GW	2	2	1	1								6				
3	MW-510BR-0117		1315	X		GW	2	2	1	1								6				
4	MW-504BR-0117		1545	X		GW	2	2	1	1								6				
5	MW-503BR-0117		1730	X		GW	2	2	1	1								6				
6	MW-207-0117		1013	X		GW	2	2	1	1								6				
7	MW-508BR-0117		1148	X		GW	2	2	1	1								6				
8	MW-12-0117		1332	X		GW	2	2	1	1								6				
9	DUP-01-0117		1200	X		GW	2	2	1	1								6				
10	MW-311-0117		1517	X		GW	2	2	1	1								6				
11	MW-306D-0117		1102	X		GW	2	2	1	1								6				
12	MW-306SAP-0117		1218	X		GW	2	2	1	1								6				
13	MW-306TZ-0117		1402	X		GW	2	2	1	1								6				
14	DUP-01-0117 MW-306BR-0117		1617	X		GW	2	2	1	1								6				
RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION										RECEIPT				
1: Daniel Howard		1/24/17/1715		1: Maize		1/26/17 10:11		PROJECT NAME: AGL Augusta										Total # of Containers				
2:				2:				PROJECT #: 6122150235.01										Turnaround Time Request <input checked="" type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other				
3:				3:				SITE ADDRESS: Walton Way + 8th St Augusta GA														
								SEND REPORT TO: John Quinn / David Price														
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				INVOICE TO:										STATE PROGRAM (if any):				
				OUT / / VIA: IN / / VIA: CLIENT <input checked="" type="radio"/> FedEx UPS MAIL COURIER GREYHOUND OTHER				(IF DIFFERENT FROM ABOVE)										E-mail? <input checked="" type="radio"/> N; Fax? Y / N				
								QUOTE #:										DATA PACKAGE: I II III IV				

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
 SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None



TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Work Order: 170M28

Date: 1/25/17 Page 2 of ^{Dr} 32

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

1701M28
1701M29
1701M30

**Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia**

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony -0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Client: AMEC E&I, Inc. -Kennesaw
Project: AGL - Augusta
Lab ID: 1701M28

Case Narrative

Sample Receiving Non-conformance:

Sample information on the Chain of Custody did not match that on the sample bottle labels for samples MW-510BR-0117 and MW-306D-0117. Sample MW-510BR-0117 had a collection time of 13:15 written on the Chain of Custody, but on the container labels it was listed as collected at 13:50. Furthermore, sample MW-306D-0117 was listed with an ID of MW-306D-1017 on the container labels. Both sample was correctly matched due to collection time and date. Samples were logged in according to the information on the Chain of Custody.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1701M28-008A, & -009A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-001

Client Sample ID: TB-01-0117
 Collection Date: 1/24/2017 9:00:00 AM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/30/2017 22:46	NP
Benzene	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Toluene	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/30/2017 22:46	NP
Surr: 4-Bromofluorobenzene	85.9	66.1-129		%REC	237205	1	01/30/2017 22:46	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237205	1	01/30/2017 22:46	NP
Surr: Toluene-d8	94.3	81.8-118		%REC	237205	1	01/30/2017 22:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-002

Client Sample ID: MW-509BR-0117
Collection Date: 1/24/2017 11:05:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 02:39	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 02:39	NP
Surr: 4-Bromofluorobenzene	85.3	66.1-129		%REC	237205	1	01/31/2017 02:39	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237205	1	01/31/2017 02:39	NP
Surr: Toluene-d8	95	81.8-118		%REC	237205	1	01/31/2017 02:39	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 00:22	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 00:22	JS
Barium	0.0261	0.00400		mg/L	237075	1	01/31/2017 00:22	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 00:22	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/31/2017 00:22	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:22	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 00:22	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 00:22	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 00:22	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 00:22	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 00:22	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:22	JS
Zinc	0.249	0.0200		mg/L	237075	1	01/31/2017 00:22	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 11:05	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 11:05	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 11:05	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 11:05	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 11:05	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 11:05	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-002

Client Sample ID: MW-509BR-0117
 Collection Date: 1/24/2017 11:05:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:05	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 11:05	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 11:05	YH
Surr: 4-Terphenyl-d14	91.2	58.5-125		%REC	237012	1	01/30/2017 11:05	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:46	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-003

Client Sample ID: MW-510BR-0117
Collection Date: 1/24/2017 1:15:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 07:19	NP
Benzene	13	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Ethylbenzene	23	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Toluene	6.4	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Xylenes, Total	27	5.0		ug/L	237205	1	01/31/2017 07:19	NP
Surr: 4-Bromofluorobenzene	95.8	66.1-129		%REC	237205	1	01/31/2017 07:19	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237205	1	01/31/2017 07:19	NP
Surr: Toluene-d8	95.9	81.8-118		%REC	237205	1	01/31/2017 07:19	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 00:29	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 00:29	JS
Barium	0.0190	0.00400		mg/L	237075	1	01/31/2017 00:29	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 00:29	JS
Cadmium	0.00591	0.00500		mg/L	237075	1	01/31/2017 00:29	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:29	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 00:29	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 00:29	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 00:29	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 00:29	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 00:29	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:29	JS
Zinc	0.0886	0.0200		mg/L	237075	1	01/31/2017 00:29	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 11:31	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 11:31	YH
Acenaphthene	3.1	0.50		ug/L	237012	1	01/30/2017 11:31	YH
Fluorene	1.2	0.10		ug/L	237012	1	01/30/2017 11:31	YH
Phenanthrene	0.60	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Anthracene	0.44	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Fluoranthene	1.2	0.10		ug/L	237012	1	01/30/2017 11:31	YH
Pyrene	1.8	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Benz(a)anthracene	0.57	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Chrysene	0.43	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Benzo(b)fluoranthene	0.34	0.10		ug/L	237012	1	01/30/2017 11:31	YH
Benzo(k)fluoranthene	0.16	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Benzo(a)pyrene	0.38	0.050		ug/L	237012	1	01/30/2017 11:31	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-003

Client Sample ID: MW-510BR-0117
 Collection Date: 1/24/2017 1:15:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	0.15	0.050		ug/L	237012	1	01/30/2017 11:31	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 11:31	YH
Benzo(g,h,i)perylene	0.20	0.10		ug/L	237012	1	01/30/2017 11:31	YH
Surr: 4-Terphenyl-d14	91.5	58.5-125		%REC	237012	1	01/30/2017 11:31	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:48	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-004

Client Sample ID: MW-504BR-0117
Collection Date: 1/24/2017 3:45:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 03:02	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 03:02	NP
Surr: 4-Bromofluorobenzene	85.9	66.1-129		%REC	237205	1	01/31/2017 03:02	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237205	1	01/31/2017 03:02	NP
Surr: Toluene-d8	95.6	81.8-118		%REC	237205	1	01/31/2017 03:02	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 00:35	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 00:35	JS
Barium	0.180	0.00400		mg/L	237075	1	01/31/2017 00:35	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 00:35	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/31/2017 00:35	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:35	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 00:35	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 00:35	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 00:35	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 00:35	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 00:35	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 00:35	JS
Zinc	0.0595	0.0200		mg/L	237075	1	01/31/2017 00:35	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 11:57	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 11:57	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 11:57	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 11:57	YH
Phenanthrene	0.087	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 11:57	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 11:57	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-004

Client Sample ID: MW-504BR-0117
 Collection Date: 1/24/2017 3:45:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 11:57	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 11:57	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 11:57	YH
Surr: 4-Terphenyl-d14	101	58.5-125		%REC	237012	1	01/30/2017 11:57	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:50	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-005

Client Sample ID: MW-503BR-0117
Collection Date: 1/24/2017 5:30:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 07:43	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 07:43	NP
Surr: 4-Bromofluorobenzene	83.7	66.1-129		%REC	237205	1	01/31/2017 07:43	NP
Surr: Dibromofluoromethane	113	83.6-123		%REC	237205	1	01/31/2017 07:43	NP
Surr: Toluene-d8	95.8	81.8-118		%REC	237205	1	01/31/2017 07:43	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 01:00	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 01:00	JS
Barium	0.00652	0.00400		mg/L	237075	1	01/31/2017 01:00	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 01:00	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/31/2017 01:00	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:00	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 01:00	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 01:00	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 01:00	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 01:00	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 01:00	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:00	JS
Zinc	0.0472	0.0200		mg/L	237075	1	01/31/2017 01:00	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 12:25	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 12:25	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 12:25	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 12:25	YH
Phenanthrene	0.055	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 12:25	YH
Pyrene	0.079	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Benz(a)anthracene	0.053	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 12:25	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:25	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-005

Client Sample ID: MW-503BR-0117
 Collection Date: 1/24/2017 5:30:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:25	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 12:25	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 12:25	YH
Surr: 4-Terphenyl-d14	107	58.5-125		%REC	237012	1	01/30/2017 12:25	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:52	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-006

Client Sample ID: MW-207-0117
Collection Date: 1/24/2017 10:13:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 03:25	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 03:25	NP
Surr: 4-Bromofluorobenzene	85.7	66.1-129		%REC	237205	1	01/31/2017 03:25	NP
Surr: Dibromofluoromethane	113	83.6-123		%REC	237205	1	01/31/2017 03:25	NP
Surr: Toluene-d8	95.8	81.8-118		%REC	237205	1	01/31/2017 03:25	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 01:06	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 01:06	JS
Barium	0.212	0.00400		mg/L	237075	1	01/31/2017 01:06	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 01:06	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/31/2017 01:06	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:06	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 01:06	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 01:06	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 01:06	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 01:06	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 01:06	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:06	JS
Zinc	BRL	0.0200		mg/L	237075	1	01/31/2017 01:06	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 12:52	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 12:52	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 12:52	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 12:52	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 12:52	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 12:52	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-006

Client Sample ID: MW-207-0117
Collection Date: 1/24/2017 10:13:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 12:52	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 12:52	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 12:52	YH
Surr: 4-Terphenyl-d14	99.4	58.5-125		%REC	237012	1	01/30/2017 12:52	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:54	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-007

Client Sample ID: MW-508BR-0117
Collection Date: 1/24/2017 11:48:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 03:49	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 03:49	NP
Surr: 4-Bromofluorobenzene	86	66.1-129		%REC	237205	1	01/31/2017 03:49	NP
Surr: Dibromofluoromethane	114	83.6-123		%REC	237205	1	01/31/2017 03:49	NP
Surr: Toluene-d8	95.2	81.8-118		%REC	237205	1	01/31/2017 03:49	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/30/2017 23:51	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/30/2017 23:51	JS
Barium	0.308	0.00400		mg/L	237075	1	01/30/2017 23:51	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/30/2017 23:51	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/30/2017 23:51	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/30/2017 23:51	JS
Copper	BRL	0.0100		mg/L	237075	1	01/30/2017 23:51	JS
Lead	BRL	0.0100		mg/L	237075	1	01/30/2017 23:51	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/30/2017 23:51	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/30/2017 23:51	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/30/2017 23:51	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/30/2017 23:51	JS
Zinc	BRL	0.0200		mg/L	237075	1	01/31/2017 17:04	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 13:18	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 13:18	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 13:18	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 13:18	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 13:18	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 13:18	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-007

Client Sample ID: MW-508BR-0117
 Collection Date: 1/24/2017 11:48:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:18	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 13:18	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 13:18	YH
Surr: 4-Terphenyl-d14	92.7	58.5-125		%REC	237012	1	01/30/2017 13:18	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:56	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-008

Client Sample ID: MW-12-0117
Collection Date: 1/24/2017 1:32:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	5000		ug/L	237146	100	01/28/2017 14:56	BN
Benzene	10000	500		ug/L	237146	100	01/28/2017 14:56	BN
Carbon disulfide	BRL	500		ug/L	237146	100	01/28/2017 14:56	BN
Ethylbenzene	2500	500		ug/L	237146	100	01/28/2017 14:56	BN
Methylene chloride	BRL	500		ug/L	237146	100	01/28/2017 14:56	BN
Trichloroethene	BRL	500		ug/L	237146	100	01/28/2017 14:56	BN
Toluene	1700	500		ug/L	237146	100	01/28/2017 14:56	BN
Xylenes, Total	2100	500		ug/L	237146	100	01/28/2017 14:56	BN
Surr: 4-Bromofluorobenzene	106	66.1-129		%REC	237146	100	01/28/2017 14:56	BN
Surr: Dibromofluoromethane	110	83.6-123		%REC	237146	100	01/28/2017 14:56	BN
Surr: Toluene-d8	93	81.8-118		%REC	237146	100	01/28/2017 14:56	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237075	1	01/31/2017 01:12	JS
Arsenic	BRL	0.0500		mg/L	237075	1	01/31/2017 01:12	JS
Barium	0.209	0.00400		mg/L	237075	1	01/31/2017 01:12	JS
Beryllium	BRL	0.00400		mg/L	237075	1	01/31/2017 01:12	JS
Cadmium	BRL	0.00500		mg/L	237075	1	01/31/2017 01:12	JS
Chromium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:12	JS
Copper	BRL	0.0100		mg/L	237075	1	01/31/2017 01:12	JS
Lead	BRL	0.0100		mg/L	237075	1	01/31/2017 01:12	JS
Nickel	BRL	0.0200		mg/L	237075	1	01/31/2017 01:12	JS
Selenium	BRL	0.0200		mg/L	237075	1	01/31/2017 01:12	JS
Thallium	BRL	0.00200		mg/L	237075	1	01/31/2017 01:12	JS
Vanadium	BRL	0.0100		mg/L	237075	1	01/31/2017 01:12	JS
Zinc	BRL	0.0200		mg/L	237075	1	01/31/2017 17:42	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	7000	500		ug/L	237012	1000	01/31/2017 20:14	YH
Acenaphthylene	9.9	1.0		ug/L	237012	1	01/30/2017 13:43	YH
Acenaphthene	120	50		ug/L	237012	100	01/31/2017 16:50	YH
Fluorene	25	10		ug/L	237012	100	01/31/2017 16:50	YH
Phenanthrene	16	5.0		ug/L	237012	100	01/31/2017 16:50	YH
Anthracene	2.9	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Fluoranthene	0.43	0.10		ug/L	237012	1	01/30/2017 13:43	YH
Pyrene	0.46	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Benz(a)anthracene	0.056	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 13:43	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:43	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-008

Client Sample ID: MW-12-0117
 Collection Date: 1/24/2017 1:32:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 13:43	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 13:43	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 13:43	YH
Surr: 4-Terphenyl-d14	108	58.5-125		%REC	237012	1	01/30/2017 13:43	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:02	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	0.012	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-009

Client Sample ID: DUP-01-0117
Collection Date: 1/24/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	5000		ug/L	237146	100	01/28/2017 14:28	BN
Benzene	10000	500		ug/L	237146	100	01/28/2017 14:28	BN
Carbon disulfide	BRL	500		ug/L	237146	100	01/28/2017 14:28	BN
Ethylbenzene	2500	500		ug/L	237146	100	01/28/2017 14:28	BN
Methylene chloride	BRL	500		ug/L	237146	100	01/28/2017 14:28	BN
Trichloroethene	BRL	500		ug/L	237146	100	01/28/2017 14:28	BN
Toluene	1800	500		ug/L	237146	100	01/28/2017 14:28	BN
Xylenes, Total	2100	500		ug/L	237146	100	01/28/2017 14:28	BN
Surr: 4-Bromofluorobenzene	109	66.1-129		%REC	237146	100	01/28/2017 14:28	BN
Surr: Dibromofluoromethane	112	83.6-123		%REC	237146	100	01/28/2017 14:28	BN
Surr: Toluene-d8	92.9	81.8-118		%REC	237146	100	01/28/2017 14:28	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 01:14	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 01:14	JS
Barium	0.183	0.00400		mg/L	237132	1	02/01/2017 01:14	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 01:14	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 01:14	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:14	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 01:14	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 01:14	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 01:14	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 01:14	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 01:14	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:14	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 01:14	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	7100	500		ug/L	237012	1000	01/31/2017 20:39	YH
Acenaphthylene	9.3	1.0		ug/L	237012	1	01/30/2017 14:09	YH
Acenaphthene	120	50		ug/L	237012	100	01/31/2017 17:16	YH
Fluorene	26	10		ug/L	237012	100	01/31/2017 17:16	YH
Phenanthrene	16	5.0		ug/L	237012	100	01/31/2017 17:16	YH
Anthracene	2.8	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Fluoranthene	0.39	0.10		ug/L	237012	1	01/30/2017 14:09	YH
Pyrene	0.45	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Benz(a)anthracene	0.058	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 14:09	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:09	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-009

Client Sample ID: DUP-01-0117
 Collection Date: 1/24/2017 12:00:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:09	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 14:09	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 14:09	YH
Surr: 4-Terphenyl-d14	99.2	58.5-125		%REC	237012	1	01/30/2017 14:09	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:04	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-010

Client Sample ID: MW-311-0117
Collection Date: 1/24/2017 3:17:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 21:51	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 21:51	BN
Surr: 4-Bromofluorobenzene	101	66.1-129		%REC	237146	1	01/28/2017 21:51	BN
Surr: Dibromofluoromethane	113	83.6-123		%REC	237146	1	01/28/2017 21:51	BN
Surr: Toluene-d8	95.5	81.8-118		%REC	237146	1	01/28/2017 21:51	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 01:45	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 01:45	JS
Barium	0.00914	0.00400		mg/L	237132	1	02/01/2017 01:45	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 01:45	JS
Cadmium	0.0601	0.00500		mg/L	237132	1	02/01/2017 01:45	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:45	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 01:45	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 01:45	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 01:45	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 01:45	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 01:45	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:45	JS
Zinc	0.0544	0.0200		mg/L	237132	1	02/01/2017 01:45	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	0.79	0.50		ug/L	237012	1	01/30/2017 14:36	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 14:36	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 14:36	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 14:36	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 14:36	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 14:36	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-010

Client Sample ID: MW-311-0117
 Collection Date: 1/24/2017 3:17:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 14:36	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 14:36	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 14:36	YH
Surr: 4-Terphenyl-d14	90.2	58.5-125		%REC	237012	1	01/30/2017 14:36	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:06	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-011

Client Sample ID: MW-306D-0117
Collection Date: 1/24/2017 11:02:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 22:20	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 22:20	BN
Surr: 4-Bromofluorobenzene	99.1	66.1-129		%REC	237146	1	01/28/2017 22:20	BN
Surr: Dibromofluoromethane	121	83.6-123		%REC	237146	1	01/28/2017 22:20	BN
Surr: Toluene-d8	100	81.8-118		%REC	237146	1	01/28/2017 22:20	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 01:51	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 01:51	JS
Barium	0.654	0.00400		mg/L	237132	1	02/01/2017 01:51	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 01:51	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 01:51	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:51	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 01:51	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 01:51	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 01:51	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 01:51	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 01:51	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:51	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 01:51	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 15:01	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 15:01	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 15:01	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 15:01	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 15:01	YH
Pyrene	0.066	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 15:01	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-011

Client Sample ID: MW-306D-0117
Collection Date: 1/24/2017 11:02:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:01	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 15:01	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 15:01	YH
Surr: 4-Terphenyl-d14	103	58.5-125		%REC	237012	1	01/30/2017 15:01	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 15:38	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-012

Client Sample ID: MW-306SAP-0117
Collection Date: 1/24/2017 12:18:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 22:47	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 22:47	BN
Surr: 4-Bromofluorobenzene	100	66.1-129		%REC	237146	1	01/28/2017 22:47	BN
Surr: Dibromofluoromethane	114	83.6-123		%REC	237146	1	01/28/2017 22:47	BN
Surr: Toluene-d8	93.1	81.8-118		%REC	237146	1	01/28/2017 22:47	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 01:58	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 01:58	JS
Barium	0.621	0.00400		mg/L	237132	1	02/01/2017 01:58	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 01:58	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 01:58	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:58	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 01:58	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 01:58	JS
Nickel	0.351	0.0200		mg/L	237132	1	02/01/2017 01:58	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 01:58	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 01:58	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 01:58	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 01:58	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	0.73	0.50		ug/L	237012	1	01/30/2017 15:29	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 15:29	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 15:29	YH
Fluorene	0.20	0.10		ug/L	237012	1	01/30/2017 15:29	YH
Phenanthrene	0.14	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Anthracene	0.055	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 15:29	YH
Pyrene	0.067	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 15:29	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:29	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-012

Client Sample ID: MW-306SAP-0117
 Collection Date: 1/24/2017 12:18:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:29	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 15:29	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 15:29	YH
Surr: 4-Terphenyl-d14	101	58.5-125		%REC	237012	1	01/30/2017 15:29	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:08	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-013

Client Sample ID: MW-306TZ-0117
Collection Date: 1/24/2017 2:02:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 23:15	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Xylenes, Total	7.9	5.0		ug/L	237146	1	01/28/2017 23:15	BN
Surr: 4-Bromofluorobenzene	111	66.1-129		%REC	237146	1	01/28/2017 23:15	BN
Surr: Dibromofluoromethane	119	83.6-123		%REC	237146	1	01/28/2017 23:15	BN
Surr: Toluene-d8	95.5	81.8-118		%REC	237146	1	01/28/2017 23:15	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:22	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:22	JS
Barium	0.720	0.00400		mg/L	237132	1	02/01/2017 02:22	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:22	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:22	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:22	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 02:22	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:22	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:22	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:22	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:22	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:22	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 02:22	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	270	50		ug/L	237012	100	01/31/2017 17:42	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 15:55	YH
Acenaphthene	15	5.0		ug/L	237012	100	01/31/2017 17:42	YH
Fluorene	2.4	0.10		ug/L	237012	1	01/30/2017 15:55	YH
Phenanthrene	1.3	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Anthracene	0.33	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Fluoranthene	0.15	0.10		ug/L	237012	1	01/30/2017 15:55	YH
Pyrene	0.15	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 15:55	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:55	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-013

Client Sample ID: MW-306TZ-0117
 Collection Date: 1/24/2017 2:02:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 15:55	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 15:55	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 15:55	YH
Surr: 4-Terphenyl-d14	98.7	58.5-125		%REC	237012	1	01/30/2017 15:55	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:10	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-014

Client Sample ID: MW-306BR-0117
Collection Date: 1/24/2017 4:17:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 23:43	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Xylenes, Total	6.0	5.0		ug/L	237146	1	01/28/2017 23:43	BN
Surr: 4-Bromofluorobenzene	111	66.1-129		%REC	237146	1	01/28/2017 23:43	BN
Surr: Dibromofluoromethane	117	83.6-123		%REC	237146	1	01/28/2017 23:43	BN
Surr: Toluene-d8	99.9	81.8-118		%REC	237146	1	01/28/2017 23:43	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:29	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:29	JS
Barium	0.431	0.00400		mg/L	237132	1	02/01/2017 02:29	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:29	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:29	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:29	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 02:29	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:29	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:29	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:29	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:29	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:29	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 02:29	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	310	50		ug/L	237012	100	01/31/2017 18:08	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 16:21	YH
Acenaphthene	14	5.0		ug/L	237012	100	01/31/2017 18:08	YH
Fluorene	2.7	0.10		ug/L	237012	1	01/30/2017 16:21	YH
Phenanthrene	1.4	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Anthracene	0.31	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Fluoranthene	0.11	0.10		ug/L	237012	1	01/30/2017 16:21	YH
Pyrene	0.14	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 16:21	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 16:21	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-014

Client Sample ID: MW-306BR-0117
 Collection Date: 1/24/2017 4:17:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 16:21	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 16:21	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 16:21	YH
Surr: 4-Terphenyl-d14	103	58.5-125		%REC	237012	1	01/30/2017 16:21	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:12	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M28-015

Client Sample ID: DUP-02-0117
Collection Date: 1/24/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/29/2017 00:12	BN
Benzene	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Toluene	BRL	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Xylenes, Total	5.7	5.0		ug/L	237146	1	01/29/2017 00:12	BN
Surr: 4-Bromofluorobenzene	107	66.1-129		%REC	237146	1	01/29/2017 00:12	BN
Surr: Dibromofluoromethane	117	83.6-123		%REC	237146	1	01/29/2017 00:12	BN
Surr: Toluene-d8	93.7	81.8-118		%REC	237146	1	01/29/2017 00:12	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:35	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:35	JS
Barium	0.428	0.00400		mg/L	237132	1	02/01/2017 02:35	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:35	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:35	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:35	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 02:35	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:35	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:35	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:35	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:35	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:35	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 02:35	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	380	50		ug/L	237012	100	01/31/2017 18:32	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 16:49	YH
Acenaphthene	15	5.0		ug/L	237012	100	01/31/2017 18:32	YH
Fluorene	2.9	0.10		ug/L	237012	1	01/30/2017 16:49	YH
Phenanthrene	1.5	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Anthracene	0.33	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Fluoranthene	0.12	0.10		ug/L	237012	1	01/30/2017 16:49	YH
Pyrene	0.15	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 16:49	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 16:49	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M28-015

Client Sample ID: DUP-02-0117
 Collection Date: 1/24/2017 12:00:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 16:49	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 16:49	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 16:49	YH
Surr: 4-Terphenyl-d14	110	58.5-125		%REC	237012	1	01/30/2017 16:49	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:14	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-509BR-0117 Lab ID: 1701M28-002 Collection Date: 1/24/2017 11:05:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	26.1		0.180	4.00	ug/L	237075	1
Zinc	249		3.92	20.0	ug/L	237075	1
Client Sample ID: MW-510BR-0117 Lab ID: 1701M28-003 Collection Date: 1/24/2017 1:15:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	13		0.14	5.0	ug/L	237205	1
Ethylbenzene	23		0.20	5.0	ug/L	237205	1
Toluene	6.4		0.20	5.0	ug/L	237205	1
Xylenes, Total	27		0.30	5.0	ug/L	237205	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	19.0		0.180	4.00	ug/L	237075	1
Cadmium	5.91		0.184	5.00	ug/L	237075	1
Zinc	88.6		3.92	20.0	ug/L	237075	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthene	3.1		0.017	0.50	ug/L	237012	1
Fluorene	1.2		0.019	0.10	ug/L	237012	1
Phenanthrene	0.60		0.022	0.050	ug/L	237012	1
Anthracene	0.44		0.026	0.050	ug/L	237012	1
Fluoranthene	1.2		0.016	0.10	ug/L	237012	1
Pyrene	1.8		0.015	0.050	ug/L	237012	1
Benz(a)anthracene	0.57		0.018	0.050	ug/L	237012	1
Chrysene	0.43		0.017	0.050	ug/L	237012	1
Benzo(b)fluoranthene	0.34		0.020	0.10	ug/L	237012	1
Benzo(k)fluoranthene	0.16		0.026	0.050	ug/L	237012	1
Benzo(a)pyrene	0.38		0.022	0.050	ug/L	237012	1
Indeno(1,2,3-cd)pyrene	0.15		0.012	0.050	ug/L	237012	1
Benzo(g,h,i)perylene	0.20		0.014	0.10	ug/L	237012	1
Client Sample ID: MW-504BR-0117 Lab ID: 1701M28-004 Collection Date: 1/24/2017 3:45:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	180		0.180	4.00	ug/L	237075	1
Zinc	59.5		3.92	20.0	ug/L	237075	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Phenanthrene	0.087		0.022	0.050	ug/L	237012	1
Client Sample ID: MW-503BR-0117 Lab ID: 1701M28-005 Collection Date: 1/24/2017 5:30:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	6.52		0.180	4.00	ug/L	237075	1
Zinc	47.2		3.92	20.0	ug/L	237075	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Phenanthrene	0.055		0.022	0.050	ug/L	237012	1
Pyrene	0.079		0.015	0.050	ug/L	237012	1
Benz(a)anthracene	0.053		0.018	0.050	ug/L	237012	1

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-207-0117 Lab ID: 1701M28-006 Collection Date: 1/24/2017 10:13:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	212		0.180	4.00	ug/L	237075	1
Client Sample ID: MW-508BR-0117 Lab ID: 1701M28-007 Collection Date: 1/24/2017 11:48:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	308		0.180	4.00	ug/L	237075	1
Client Sample ID: MW-12-0117 Lab ID: 1701M28-008 Collection Date: 1/24/2017 1:32:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	10000		14	500	ug/L	237146	100
Ethylbenzene	2500		20	500	ug/L	237146	100
Toluene	1700		20	500	ug/L	237146	100
Xylenes, Total	2100		30	500	ug/L	237146	100
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	209		0.180	4.00	ug/L	237075	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	7000		7.2	500	ug/L	237012	1000
Acenaphthylene	9.9		0.020	1.0	ug/L	237012	1
Acenaphthene	120		1.7	50	ug/L	237012	100
Fluorene	25		1.9	10	ug/L	237012	100
Phenanthrene	16		2.2	5.0	ug/L	237012	100
Anthracene	2.9		0.026	0.050	ug/L	237012	1
Fluoranthene	0.43		0.016	0.10	ug/L	237012	1
Pyrene	0.46		0.015	0.050	ug/L	237012	1
Benz(a)anthracene	0.056		0.018	0.050	ug/L	237012	1
Cyanide SW9014				(SW9010C)			
Cyanide, Total	0.012		0.005	0.010	mg/L	237285	1
Client Sample ID: DUP-01-0117 Lab ID: 1701M28-009 Collection Date: 1/24/2017 12:00:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	10000		14	500	ug/L	237146	100
Ethylbenzene	2500		20	500	ug/L	237146	100
Toluene	1800		20	500	ug/L	237146	100
Xylenes, Total	2100		30	500	ug/L	237146	100
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	183		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	7100		7.2	500	ug/L	237012	1000
Acenaphthylene	9.3		0.020	1.0	ug/L	237012	1
Acenaphthene	120		1.7	50	ug/L	237012	100
Fluorene	26		1.9	10	ug/L	237012	100
Phenanthrene	16		2.2	5.0	ug/L	237012	100
Anthracene	2.8		0.026	0.050	ug/L	237012	1
Fluoranthene	0.39		0.016	0.10	ug/L	237012	1
Pyrene	0.45		0.015	0.050	ug/L	237012	1

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: DUP-01-0117 Lab ID: 1701M28-009 Collection Date: 1/24/2017 12:00:00 PM Matrix: Groundwater							
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Benz(a)anthracene	0.058		0.018	0.050	ug/L	237012	1
Client Sample ID: MW-311-0117 Lab ID: 1701M28-010 Collection Date: 1/24/2017 3:17:00 PM Matrix: Groundwater							
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	9.14		0.180	4.00	ug/L	237132	1
Cadmium	60.1		0.184	5.00	ug/L	237132	1
Zinc	54.4		3.92	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Naphthalene	0.79		0.0072	0.50	ug/L	237012	1
Client Sample ID: MW-306D-0117 Lab ID: 1701M28-011 Collection Date: 1/24/2017 11:02:00 AM Matrix: Groundwater							
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	654		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Pyrene	0.066		0.015	0.050	ug/L	237012	1
Client Sample ID: MW-306SAP-0117 Lab ID: 1701M28-012 Collection Date: 1/24/2017 12:18:00 PM Matrix: Groundwater							
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	621		0.180	4.00	ug/L	237132	1
Nickel	351		0.132	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Naphthalene	0.73		0.0072	0.50	ug/L	237012	1
Fluorene	0.20		0.019	0.10	ug/L	237012	1
Phenanthrene	0.14		0.022	0.050	ug/L	237012	1
Anthracene	0.055		0.026	0.050	ug/L	237012	1
Pyrene	0.067		0.015	0.050	ug/L	237012	1
Client Sample ID: MW-306TZ-0117 Lab ID: 1701M28-013 Collection Date: 1/24/2017 2:02:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS	SW8260B			(SW5030B)			
Xylenes, Total	7.9		0.30	5.0	ug/L	237146	1
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	720		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Naphthalene	270		0.72	50	ug/L	237012	100
Acenaphthene	15		1.7	5.0	ug/L	237012	100
Fluorene	2.4		0.019	0.10	ug/L	237012	1
Phenanthrene	1.3		0.022	0.050	ug/L	237012	1
Anthracene	0.33		0.026	0.050	ug/L	237012	1
Fluoranthene	0.15		0.016	0.10	ug/L	237012	1
Pyrene	0.15		0.015	0.050	ug/L	237012	1
Client Sample ID: MW-306BR-0117 Lab ID: 1701M28-014 Collection Date: 1/24/2017 4:17:00 PM Matrix: Groundwater							

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-306BR-0117				Lab ID: 1701M28-014			
Collection Date: 1/24/2017 4:17:00 PM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Xylenes, Total	6.0		0.30	5.0	ug/L	237146	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	431		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	310		0.72	50	ug/L	237012	100
Acenaphthene	14		1.7	5.0	ug/L	237012	100
Fluorene	2.7		0.019	0.10	ug/L	237012	1
Phenanthrene	1.4		0.022	0.050	ug/L	237012	1
Anthracene	0.31		0.026	0.050	ug/L	237012	1
Fluoranthene	0.11		0.016	0.10	ug/L	237012	1
Pyrene	0.14		0.015	0.050	ug/L	237012	1
Client Sample ID: DUP-02-0117				Lab ID: 1701M28-015			
Collection Date: 1/24/2017 12:00:00 PM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Xylenes, Total	5.7		0.30	5.0	ug/L	237146	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	428		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	380		0.72	50	ug/L	237012	100
Acenaphthene	15		1.7	5.0	ug/L	237012	100
Fluorene	2.9		0.019	0.10	ug/L	237012	1
Phenanthrene	1.5		0.022	0.050	ug/L	237012	1
Anthracene	0.33		0.026	0.050	ug/L	237012	1
Fluoranthene	0.12		0.016	0.10	ug/L	237012	1
Pyrene	0.15		0.015	0.050	ug/L	237012	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC/Kennesaw

Work Order Number 170/M20

Checklist completed by [Signature] Date 1/26/17

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}\text{C}$) * Yes ☒ No ☐

Cooler #1 0.9 Cooler #2 4.4 Cooler #3 0.3 Cooler #4 0.6 Cooler #5 2.4 Cooler #6

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☐ No ☒

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? Checked by [Signature]
Sample Condition: Good ☒ Other(Explain)

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Receipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M28

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M28-001A	TB-01-0117	1/24/2017 9:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/30/2017
1701M28-002A	MW-509BR-0117	1/24/2017 11:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-002B	MW-509BR-0117	1/24/2017 11:05:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-002C	MW-509BR-0117	1/24/2017 11:05:00AM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-002C	MW-509BR-0117	1/24/2017 11:05:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-002D	MW-509BR-0117	1/24/2017 11:05:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-003A	MW-510BR-0117	1/24/2017 1:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-003B	MW-510BR-0117	1/24/2017 1:15:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-003C	MW-510BR-0117	1/24/2017 1:15:00PM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-003C	MW-510BR-0117	1/24/2017 1:15:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-003D	MW-510BR-0117	1/24/2017 1:15:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-004A	MW-504BR-0117	1/24/2017 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-004B	MW-504BR-0117	1/24/2017 3:45:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-004C	MW-504BR-0117	1/24/2017 3:45:00PM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-004C	MW-504BR-0117	1/24/2017 3:45:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-004D	MW-504BR-0117	1/24/2017 3:45:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-005A	MW-503BR-0117	1/24/2017 5:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-005B	MW-503BR-0117	1/24/2017 5:30:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-005C	MW-503BR-0117	1/24/2017 5:30:00PM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-005C	MW-503BR-0117	1/24/2017 5:30:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-005D	MW-503BR-0117	1/24/2017 5:30:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-006A	MW-207-0117	1/24/2017 10:13:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-006B	MW-207-0117	1/24/2017 10:13:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-006C	MW-207-0117	1/24/2017 10:13:00AM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-006C	MW-207-0117	1/24/2017 10:13:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-006D	MW-207-0117	1/24/2017 10:13:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-007A	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M28-007B	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-007C	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M28

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M28-007C	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-007C	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-007D	MW-508BR-0117	1/24/2017 11:48:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-008A	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-008B	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-008B	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M28-008C	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	Total Metals by ICP/MS		1/27/2017 5:00:00PM	01/31/2017
1701M28-008C	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-008D	MW-12-0117	1/24/2017 1:32:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-009A	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-009B	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-009B	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M28-009C	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-009C	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-009D	DUP-01-0117	1/24/2017 12:00:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-010A	MW-311-0117	1/24/2017 3:17:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-010B	MW-311-0117	1/24/2017 3:17:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-010C	MW-311-0117	1/24/2017 3:17:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-010C	MW-311-0117	1/24/2017 3:17:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-010D	MW-311-0117	1/24/2017 3:17:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-011A	MW-306D-0117	1/24/2017 11:02:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-011B	MW-306D-0117	1/24/2017 11:02:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-011C	MW-306D-0117	1/24/2017 11:02:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-011C	MW-306D-0117	1/24/2017 11:02:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-011D	MW-306D-0117	1/24/2017 11:02:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-012A	MW-306SAP-0117	1/24/2017 12:18:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-012B	MW-306SAP-0117	1/24/2017 12:18:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-012C	MW-306SAP-0117	1/24/2017 12:18:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-012C	MW-306SAP-0117	1/24/2017 12:18:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M28

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M28-012D	MW-306SAP-0117	1/24/2017 12:18:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-013A	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-013B	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-013B	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M28-013C	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-013C	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-013D	MW-306TZ-0117	1/24/2017 2:02:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-014A	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M28-014B	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-014B	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M28-014C	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-014C	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-014D	MW-306BR-0117	1/24/2017 4:17:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M28-015A	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/29/2017
1701M28-015B	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M28-015B	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M28-015C	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M28-015C	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M28-015D	DUP-02-0117	1/24/2017 12:00:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237012**

Sample ID: MB-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7316325			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.201	0	2.000		110	58.5	125				

Sample ID: LCS-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7316326			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.862	0.50	2.000		93.1	69.1	117				
Acenaphthylene	1.726	1.0	2.000		86.3	59.7	118				
Anthracene	2.046	0.050	2.000		102	64.7	121				
Benz(a)anthracene	2.257	0.050	2.000		113	61.7	139				
Benzo(a)pyrene	2.149	0.050	2.000		107	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237012

Sample ID: LCS-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237012	Analysis Date: 01/30/2017	Seq No: 7316326			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	1.867	0.10	2.000		93.3	60.8	129				
Benzo(g,h,i)perylene	1.911	0.10	2.000		95.5	60.1	129				
Benzo(k)fluoranthene	2.076	0.050	2.000		104	69.6	130				
Chrysene	2.286	0.050	2.000		114	76.5	127				
Dibenz(a,h)anthracene	1.659	0.10	2.000		83.0	55.2	126				
Fluoranthene	2.168	0.10	2.000		108	66.5	133				
Fluorene	1.927	0.10	2.000		96.3	66.1	122				
Indeno(1,2,3-cd)pyrene	1.908	0.050	2.000		95.4	58.8	132				
Naphthalene	1.782	0.50	2.000		89.1	60.6	120				
Phenanthrene	1.933	0.050	2.000	0.03097	95.1	65.9	118				
Pyrene	2.207	0.050	2.000		110	70.2	129				
Surr: 4-Terphenyl-d14	2.081	0	2.000		104	58.5	125				

Sample ID: 1701M28-002BMS	Client ID: MW-509BR-0117	Units: ug/L				Prep Date: 01/27/2017	Run No: 335321				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7317551				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.532	0.50	2.000		76.6	49.7	118				
Acenaphthylene	1.426	1.0	2.000		71.3	56.7	120				
Anthracene	1.614	0.050	2.000		80.7	54.4	117				
Benz(a)anthracene	1.877	0.050	2.000	0.03964	91.9	52.4	135				
Benzo(a)pyrene	1.604	0.050	2.000		80.2	51.5	117				
Benzo(b)fluoranthene	1.250	0.10	2.000	0.02870	61.1	45.6	124				
Benzo(g,h,i)perylene	1.177	0.10	2.000	0.03421	57.1	45.9	120				
Benzo(k)fluoranthene	1.425	0.050	2.000	0.02574	70.0	51.8	122				
Chrysene	1.693	0.050	2.000	0.03542	82.9	59.9	120				
Dibenz(a,h)anthracene	1.031	0.10	2.000	0.03041	50.0	41.6	120				
Fluoranthene	1.729	0.10	2.000	0.02614	85.1	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237012**

Sample ID: 1701M28-002BMS	Client ID: MW-509BR-0117	Units: ug/L				Prep Date: 01/27/2017	Run No: 335321				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7317551				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.569	0.10	2.000		78.5	57.9	117				
Indeno(1,2,3-cd)pyrene	1.220	0.050	2.000	0.03265	59.4	45.5	120				
Naphthalene	1.465	0.50	2.000		73.2	53.9	120				
Phenanthrene	1.504	0.050	2.000	0.03079	73.7	58.1	120				
Pyrene	1.718	0.050	2.000	0.02895	84.5	61.6	120				
Surr: 4-Terphenyl-d14	2.453	0	2.000		123	58.5	125				

Sample ID: 1701M28-002BMSD	Client ID: MW-509BR-0117				Units: ug/L	Prep Date: 01/27/2017	Run No: 335321				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237012	Analysis Date: 01/30/2017	Seq No: 7317552				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.587	0.50	2.000		79.3	49.7	118	1.532	3.53	17.4	
Acenaphthylene	1.503	1.0	2.000		75.1	56.7	120	1.426	5.20	19.5	
Anthracene	1.803	0.050	2.000		90.2	54.4	117	1.614	11.1	24.5	
Benz(a)anthracene	2.149	0.050	2.000	0.03964	105	52.4	135	1.877	13.5	30.2	
Benzo(a)pyrene	1.859	0.050	2.000		93.0	51.5	117	1.604	14.7	25.6	
Benzo(b)fluoranthene	1.425	0.10	2.000	0.02870	69.8	45.6	124	1.250	13.1	20.9	
Benzo(g,h,i)perylene	1.354	0.10	2.000	0.03421	66.0	45.9	120	1.177	14.0	28.6	
Benzo(k)fluoranthene	1.598	0.050	2.000	0.02574	78.6	51.8	122	1.425	11.4	28.6	
Chrysene	1.937	0.050	2.000	0.03542	95.1	59.9	120	1.693	13.5	26.4	
Dibenz(a,h)anthracene	1.219	0.10	2.000	0.03041	59.5	41.6	120	1.031	16.7	17.8	
Fluoranthene	1.890	0.10	2.000	0.02614	93.2	59.7	122	1.729	8.88	22.1	
Fluorene	1.719	0.10	2.000		86.0	57.9	117	1.569	9.11	20.8	
Indeno(1,2,3-cd)pyrene	1.387	0.050	2.000	0.03265	67.7	45.5	120	1.220	12.8	19.3	
Naphthalene	1.417	0.50	2.000		70.9	53.9	120	1.465	3.31	20.6	
Phenanthrene	1.660	0.050	2.000	0.03079	81.4	58.1	120	1.504	9.84	19.4	
Pyrene	1.923	0.050	2.000	0.02895	94.7	61.6	120	1.718	11.3	21.2	
Surr: 4-Terphenyl-d14	1.775	0	2.000		88.7	58.5	125	2.453	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237012

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237075

Sample ID: MB-237075	Client ID:					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237075				Analysis Date: 01/30/2017	Seq No: 7318926			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500
Arsenic	BRL	0.00500
Barium	BRL	0.00400
Beryllium	BRL	0.00100
Cadmium	BRL	0.000700
Chromium	BRL	0.00500
Copper	BRL	0.00200
Lead	BRL	0.00100
Nickel	BRL	0.00500
Selenium	BRL	0.00500
Thallium	BRL	0.00100
Vanadium	BRL	0.00500
Zinc	BRL	0.0100

Sample ID: LCS-237075	Client ID:					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: LCS	TestCode: Total Metals by ICP/MS SW6020B					BatchID: 237075	Analysis Date: 01/30/2017	Seq No: 7318927			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1019	0.00500	0.1000	102	80	120
Arsenic	0.1052	0.00500	0.1000	105	80	120
Barium	0.1018	0.0100	0.1000	102	80	120
Beryllium	0.1045	0.00100	0.1000	104	80	120
Cadmium	0.1012	0.000700	0.1000	101	80	120

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237075

Sample ID: LCS-237075	Client ID:					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237075				Analysis Date: 01/30/2017	Seq No: 7318927			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.1031	0.00500	0.1000	0.001141	102	80	120				
Copper	0.1052	0.00200	0.1000		105	80	120				
Lead	0.09883	0.00100	0.1000		98.8	80	120				
Nickel	0.1045	0.00500	0.1000	0.0002290	104	80	120				
Selenium	0.1041	0.00500	0.1000		104	80	120				
Thallium	0.09655	0.00100	0.1000		96.6	80	120				
Vanadium	0.09955	0.00500	0.1000		99.6	80	120				
Zinc	0.1027	0.0100	0.1000		103	80	120				

Sample ID: 1701M28-007CMS	Client ID: MW-508BR-0117					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237075				Analysis Date: 01/30/2017	Seq No: 7318929			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09897	0.00500	0.1000	0.0005330	98.4	75	125				
Arsenic	0.1020	0.00500	0.1000	0.0003610	102	75	125				
Barium	0.4118	0.0100	0.1000	0.3084	103	75	125				
Beryllium	0.1026	0.00100	0.1000		103	75	125				
Cadmium	0.09702	0.000700	0.1000		97.0	75	125				
Chromium	0.09972	0.00500	0.1000	0.002761	97.0	75	125				
Copper	0.1010	0.00200	0.1000	0.002748	98.3	75	125				
Lead	0.09543	0.00100	0.1000	0.0003110	95.1	75	125				
Nickel	0.1021	0.00500	0.1000	0.003645	98.5	75	125				
Selenium	0.1014	0.00500	0.1000	0.002075	99.3	75	125				
Thallium	0.09331	0.00100	0.1000	0.0002210	93.1	75	125				
Vanadium	0.1082	0.00500	0.1000	0.009734	98.5	75	125				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237075**

Sample ID: 1701M28-007CMS	Client ID: MW-508BR-0117	Units: mg/L				Prep Date: 01/27/2017	Run No: 335427				
SampleType: MS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237075				Analysis Date: 01/31/2017	Seq No: 7319905				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 0.09464 0.0100 0.1000 94.6 75 125

Sample ID: 1701M28-007CMSD	Client ID: MW-508BR-0117					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237075				Analysis Date: 01/31/2017	Seq No: 7318930			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1006	0.00500	0.1000	0.0005330	100	75	125	0.09897	1.63	20
Arsenic	0.1032	0.00500	0.1000	0.0003610	103	75	125	0.1020	1.17	20
Barium	0.4194	0.0100	0.1000	0.3084	111	75	125	0.4118	1.83	20
Beryllium	0.1034	0.00100	0.1000		103	75	125	0.1026	0.777	20
Cadmium	0.09796	0.000700	0.1000		98.0	75	125	0.09702	0.964	20
Chromium	0.1006	0.00500	0.1000	0.002761	97.8	75	125	0.09972	0.879	20
Copper	0.1027	0.00200	0.1000	0.002748	100.0	75	125	0.1010	1.67	20
Lead	0.09757	0.00100	0.1000	0.0003110	97.3	75	125	0.09543	2.22	20
Nickel	0.1037	0.00500	0.1000	0.003645	100	75	125	0.1021	1.55	20
Selenium	0.1025	0.00500	0.1000	0.002075	100	75	125	0.1014	1.08	20
Thallium	0.09405	0.00100	0.1000	0.0002210	93.8	75	125	0.09331	0.790	20
Vanadium	0.1090	0.00500	0.1000	0.009734	99.3	75	125	0.1082	0.737	20

Sample ID: 1701M28-007CMSD	Client ID: MW-508BR-0117					Units: mg/L	Prep Date: 01/27/2017	Run No: 335427			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237075				Analysis Date: 01/31/2017	Seq No: 7319906			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 0.09527 0.0100 0.1000 95.3 75 125 0.09464 0.663 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237132**

Sample ID: MB-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321774			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321775			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09442	0.00500	0.1000		94.4	80	120				
Arsenic	0.09339	0.00500	0.1000		93.4	80	120				
Barium	0.09203	0.0100	0.1000		92.0	80	120				
Beryllium	0.09392	0.00100	0.1000		93.9	80	120				
Cadmium	0.09463	0.000700	0.1000		94.6	80	120				
Chromium	0.09353	0.00500	0.1000	0.0006930	92.8	80	120				
Copper	0.09217	0.00200	0.1000		92.2	80	120				
Lead	0.09155	0.00100	0.1000		91.6	80	120				
Nickel	0.09211	0.00500	0.1000		92.1	80	120				
Selenium	0.09431	0.00500	0.1000		94.3	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237132**

Sample ID: LCS-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321775			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.08688	0.00100	0.1000		86.9	80	120				
Vanadium	0.09035	0.00500	0.1000		90.4	80	120				
Zinc	0.09603	0.0100	0.1000		96.0	80	120				

Sample ID: 1701M28-009CMS	Client ID: DUP-01-0117	Units: mg/L				Prep Date: 01/30/2017	Run No: 335542				
SampleType: MS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321777				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09458	0.00500	0.1000	0.0003730	94.2	75	125				
Arsenic	0.08952	0.00500	0.1000	0.0003490	89.2	75	125				
Barium	0.2813	0.0100	0.1000	0.1829	98.4	75	125				
Beryllium	0.09588	0.00100	0.1000	0.0001980	95.7	75	125				
Cadmium	0.09477	0.000700	0.1000	0.0006480	94.1	75	125				
Chromium	0.08964	0.00500	0.1000	0.001964	87.7	75	125				
Copper	0.08909	0.00200	0.1000	0.0005540	88.5	75	125				
Lead	0.09119	0.00100	0.1000		91.2	75	125				
Nickel	0.08763	0.00500	0.1000	0.0008850	86.7	75	125				
Selenium	0.08477	0.00500	0.1000	0.0002400	84.5	75	125				
Thallium	0.08616	0.00100	0.1000	0.0001660	86.0	75	125				
Vanadium	0.08543	0.00500	0.1000		85.4	75	125				
Zinc	0.1007	0.0100	0.1000	0.01116	89.5	75	125				

Sample ID: 1701M28-009CMSD	Client ID: DUP-01-0117					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321778			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09278	0.00500	0.1000	0.0003730	92.4	75	125	0.09458	1.92	20	
Arsenic	0.08890	0.00500	0.1000	0.0003490	88.6	75	125	0.08952	0.695	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL QC SUMMARY REPORT

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

BatchID: 237132

Sample ID: 1701M28-009CMSD	Client ID: DUP-01-0117	Units: mg/L			Prep Date: 01/30/2017	Run No: 335542					
SampleType: MSD	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237132			Analysis Date: 02/01/2017	Seq No: 7321778					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.2789	0.0100	0.1000	0.1829	96.0	75	125	0.2813	0.857	20	
Beryllium	0.09377	0.00100	0.1000	0.0001980	93.6	75	125	0.09588	2.23	20	
Cadmium	0.09307	0.000700	0.1000	0.0006480	92.4	75	125	0.09477	1.81	20	
Chromium	0.08906	0.00500	0.1000	0.001964	87.1	75	125	0.08964	0.649	20	
Copper	0.08806	0.00200	0.1000	0.0005540	87.5	75	125	0.08909	1.16	20	
Lead	0.08992	0.00100	0.1000		89.9	75	125	0.09119	1.40	20	
Nickel	0.08659	0.00500	0.1000	0.0008850	85.7	75	125	0.08763	1.19	20	
Selenium	0.08390	0.00500	0.1000	0.0002400	83.7	75	125	0.08477	1.03	20	
Thallium	0.08518	0.00100	0.1000	0.0001660	85.0	75	125	0.08616	1.14	20	
Vanadium	0.08487	0.00500	0.1000		84.9	75	125	0.08543	0.658	20	
Zinc	0.1011	0.0100	0.1000	0.01116	89.9	75	125	0.1007	0.396	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237146

Sample ID: MB-237146	Client ID:	Units: ug/L				Prep Date: 01/28/2017	Run No: 335345				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237146				Analysis Date: 01/28/2017	Seq No: 7316757				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.27	0	50.00		101	66.1	129				
Surr: Dibromofluoromethane	59.36	0	50.00		119	83.6	123				
Surr: Toluene-d8	48.12	0	50.00		96.2	81.8	118				

Sample ID: LCS-237146	Client ID:					Units: ug/L	Prep Date: 01/28/2017	Run No: 335363			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237146	Analysis Date: 01/30/2017	Seq No: 7318446			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	53.01	5.0	50.00		106	74	125				
Toluene	55.68	5.0	50.00		111	75.9	126				
Trichloroethene	56.50	5.0	50.00		113	70.6	129				
Surr: 4-Bromofluorobenzene	51.47	0	50.00		103	66.1	129				
Surr: Dibromofluoromethane	58.53	0	50.00		117	83.6	123				
Surr: Toluene-d8	49.50	0	50.00		99.0	81.8	118				

Sample ID: 1701M28-008AMS	Client ID: MW-12-0117	Units: ug/L			Prep Date: 01/28/2017	Run No: 335345					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237146			Analysis Date: 01/28/2017	Seq No: 7316761					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	15730	500	5000	9952	116	71.6	132				
---------	-------	-----	------	------	-----	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237146

Sample ID: 1701M28-008AMS	Client ID: MW-12-0117	Units: ug/L	Prep Date: 01/28/2017	Run No: 335345							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237146	Analysis Date: 01/28/2017	Seq No: 7316761							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	8007	500	5000	1735	125	72.5	135				
Trichloroethene	6009	500	5000		120	70.2	132				
Surr: 4-Bromofluorobenzene	5295	0	5000		106	66.1	129				
Surr: Dibromofluoromethane	5602	0	5000		112	83.6	123				
Surr: Toluene-d8	4655	0	5000		93.1	81.8	118				

Sample ID: 1701M28-008AMSD	Client ID: MW-12-0117	Units: ug/L	Prep Date: 01/28/2017	Run No: 335345							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237146	Analysis Date: 01/28/2017	Seq No: 7316762							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	15700	500	5000	9952	115	71.6	132	15730	0.178	20.7	
Toluene	7690	500	5000	1735	119	72.5	135	8007	4.04	23.2	
Trichloroethene	6021	500	5000		120	70.2	132	6009	0.200	27.7	
Surr: 4-Bromofluorobenzene	5479	0	5000		110	66.1	129	5295	0	0	
Surr: Dibromofluoromethane	5809	0	5000		116	83.6	123	5602	0	0	
Surr: Toluene-d8	4791	0	5000		95.8	81.8	118	4655	0	0	

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237205

Sample ID: MB-237205	Client ID:	Units: ug/L				Prep Date: 01/30/2017	Run No: 335414				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205				Analysis Date: 01/30/2017	Seq No: 7318413				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	44.54	0	50.00		89.1	66.1	129				
Surr: Dibromofluoromethane	56.63	0	50.00		113	83.6	123				
Surr: Toluene-d8	47.65	0	50.00		95.3	81.8	118				

Sample ID: LCS-237205	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335414			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237205	Analysis Date: 01/30/2017	Seq No: 7318412			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	45.04	5.0	50.00		90.1	74	125				
Toluene	47.42	5.0	50.00		94.8	75.9	126				
Trichloroethene	45.47	5.0	50.00		90.9	70.6	129				
Surr: 4-Bromofluorobenzene	43.85	0	50.00		87.7	66.1	129				
Surr: Dibromofluoromethane	53.83	0	50.00		108	83.6	123				
Surr: Toluene-d8	46.24	0	50.00		92.5	81.8	118				

Sample ID: 1701M29-003AMS	Client ID:				Units: ug/L	Prep Date: 01/30/2017	Run No: 335414				
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 237205	Analysis Date: 01/31/2017	Seq No: 7318434				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	52210	2500	25000	26510	103	71.6	132				
---------	-------	------	-------	-------	-----	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT**BatchID: 237205**

Sample ID: 1701M29-003AMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335414			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237205	Analysis Date: 01/31/2017	Seq No: 7318434			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	36200	2500	25000	9965	105	72.5	135				
Trichloroethene	23420	2500	25000		93.7	70.2	132				
Surr: 4-Bromofluorobenzene	22200	0	25000		88.8	66.1	129				
Surr: Dibromofluoromethane	27710	0	25000		111	83.6	123				
Surr: Toluene-d8	23440	0	25000		93.8	81.8	118				

Sample ID: 1701M29-003AMSD	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335414			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237205	Analysis Date: 01/31/2017	Seq No: 7318435			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50390	2500	25000	26510	95.5	71.6	132	52210	3.55	20.7	
Toluene	35220	2500	25000	9965	101	72.5	135	36200	2.74	23.2	
Trichloroethene	23090	2500	25000		92.3	70.2	132	23420	1.42	27.7	
Surr: 4-Bromofluorobenzene	21990	0	25000		87.9	66.1	129	22200	0	0	
Surr: Dibromofluoromethane	26920	0	25000		108	83.6	123	27710	0	0	
Surr: Toluene-d8	23310	0	25000		93.2	81.8	118	23440	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237237

Sample ID: MB-237237	Client ID:	Units: mg/L				Prep Date: 02/01/2017	Run No: 335567				
SampleType: MBLK	TestCode: Mercury, Total	BatchID: 237237				Analysis Date: 02/01/2017	Seq No: 7322321				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237237	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335567			
SampleType: LCS	TestCode: Mercury, Total	SW7470A				BatchID: 237237	Analysis Date: 02/01/2017	Seq No: 7322322			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005433 0.00020 0.0050 109 80 120

Sample ID: 1701M28-011CMS	Client ID: MW-306D-0117	Units: mg/L	Prep Date: 02/01/2017	Run No: 335567							
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 237237	Analysis Date: 02/01/2017	Seq No: 7322326							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005389 0.00020 0.0050 108 70 130

Sample ID: 1701M28-011CMSD	Client ID: MW-306D-0117	Units: mg/L	Prep Date: 02/01/2017	Run No: 335567							
SampleType: MSD	TestCode: Mercury, Total SW7470A	BatchID: 237237	Analysis Date: 02/01/2017	Seq No: 7322327							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005425 0.00020 0.0050 109 70 130 0.005389 0.663 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M28

ANALYTICAL QC SUMMARY REPORT

BatchID: 237285

Sample ID: MB-237285		Client ID:			Units: mg/L		Prep Date: 01/31/2017		Run No: 335502		
SampleType: MBLK		TestCode: Cyanide SW9014			BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320743		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237285		Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335502			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320744			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-001DMS	Client ID:				Units: mg/L	Prep Date: 01/31/2017	Run No: 335502				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 237285	Analysis Date: 01/31/2017	Seq No: 7320765				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2330 0.010 0.2500 93.2 70 130

Sample ID: 1701O62-001DMSD					Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335502	
SampleType: MSD					TestCode: Cyanide SW9014		BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320769	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual	

Cyanide, Total 0.2570 0.010 0.2500 103 70 130 0.2330 9.80 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 03, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701M29

Analytical Environmental Services, Inc. received 13 samples on 1/26/2017 10:11:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1701m29

Date: 1/25/17 Page 1 of 21

COMPANY: Amec Foster Wheeler		ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers		
PHONE: 770-421-3400		FAX: 770-421-3486					<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs 1st</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PAHs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">270C SIM</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">T+metals+H9</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">6030/410A</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CN 9014</div> </div>														
SAMPLED BY: T Moore, D Howard, E Guillen, N McMillan		SIGNATURE: Daniel Howard																			
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)										REMARKS				
		DATE	TIME				H	I	N	N	FA										
1	TB-02-0117	1/25/17	0830	X		W	2														2
2	MW-512BR-0117	↓	1037	X		GW	2	2	1	1											6
3	MW-600-0117	↓	1248	X		GW	2	2	1	1											6
4	DUP-3-0117	↓	1200	X		GW	2	2	1	1											6
5	MW-512BR-0117																				6
6	MW-511BR-0117	1/25/17	1457	X		GW	2	2	1	1											6
7	MW-402D-0117	↓	1025	X		GW	2	2	1	1											6
8	MW-4025-0117	↓	1140	X		GW	2	2	1	1											6
9	MW-19-0117	↓	1440	X		GW	2	2	1	1											6
10	DUP-6-0117	↓	1200	X		GW	2	2	1	1											6
11	MW-205-0117	↓	1359	X		GW	2	2	1	1											6
12	MW-213-0117	↓	1231	X		GW	2	1	1	1											6
13	MW-214-0117	↓	1045	X		GW	2	1	1	1											6
14	MW-22-0117	✓	0933	X		GW	2	1	1	1											6
RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:		DATE/TIME:	PROJECT INFORMATION										RECEIPT					
1: Daniel Howard		1/25/17 / 1745	1: Mefer		1/26/17 10:44	PROJECT NAME: AGL Augusta										Total # of Containers					
2:			2:			PROJECT #: 6122150235.01										Turnaround Time Request <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other					
3:			3:			SITE ADDRESS: Walton Way + 8th St Augusta, GA															
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD:				SEND REPORT TO: John Quinn/David Price										STATE PROGRAM (if any):					
		OUT / / VIA: IN / / VIA: CLIENT RedEx UPS MAIL COURIER GREYHOUND OTHER				INVOICE TO: (IF DIFFERENT FROM ABOVE)										E-mail? Fax?					
						QUOTE #: PO#:										DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>					

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None White Copy - Original; Yellow Copy - Client

1701M28
1701M29
1701M30

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony -0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Client: AMEC E&I, Inc. -Kennesaw
Project: AGL - Augusta
Lab ID: 1701M29

Case Narrative

Sample Receiving Non-conformance:

Sample information on the Chain of Custody in terms of container amount did not match the amount received. Samples MW-213-0117, MW-214-0117, and MW-22-0117 were listed to have only one container for Polynuclear Aromatic Hydrocarbons SW8270C SIM on the Chain of Custody, but AES received two containers per sample. All samples were logged in based on the containers received.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, sample 1701M29-003A, -004A, & -011A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-001

Client Sample ID: TB-02-0117
 Collection Date: 1/25/2017 8:30:00 AM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/30/2017 23:09	NP
Benzene	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Toluene	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/30/2017 23:09	NP
Surr: 4-Bromofluorobenzene	85.6	66.1-129		%REC	237205	1	01/30/2017 23:09	NP
Surr: Dibromofluoromethane	115	83.6-123		%REC	237205	1	01/30/2017 23:09	NP
Surr: Toluene-d8	95.4	81.8-118		%REC	237205	1	01/30/2017 23:09	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-002

Client Sample ID: MW-512BR-0117
Collection Date: 1/25/2017 10:37:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 04:12	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 04:12	NP
Surr: 4-Bromofluorobenzene	84.8	66.1-129		%REC	237205	1	01/31/2017 04:12	NP
Surr: Dibromofluoromethane	114	83.6-123		%REC	237205	1	01/31/2017 04:12	NP
Surr: Toluene-d8	97.3	81.8-118		%REC	237205	1	01/31/2017 04:12	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:41	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:41	JS
Barium	0.198	0.00400		mg/L	237132	1	02/01/2017 02:41	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:41	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:41	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:41	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 02:41	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:41	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:41	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:41	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:41	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:41	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 02:41	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 17:15	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 17:15	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 17:15	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 17:15	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 17:15	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 17:15	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-002

Client Sample ID: MW-512BR-0117
 Collection Date: 1/25/2017 10:37:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 17:15	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 17:15	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 17:15	YH
Surr: 4-Terphenyl-d14	106	58.5-125		%REC	237012	1	01/30/2017 17:15	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237237	1	02/01/2017 16:16	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-003

Client Sample ID: MW-600-0117
Collection Date: 1/25/2017 12:48:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	2500		ug/L	237205	50	01/31/2017 15:27	NP
Benzene	27000	2500		ug/L	237205	500	01/31/2017 00:43	NP
Carbon disulfide	BRL	250		ug/L	237205	50	01/31/2017 15:27	NP
Ethylbenzene	2700	250		ug/L	237205	50	01/31/2017 15:27	NP
Methylene chloride	BRL	250		ug/L	237205	50	01/31/2017 15:27	NP
Trichloroethene	BRL	250		ug/L	237205	50	01/31/2017 15:27	NP
Toluene	10000	2500		ug/L	237205	500	01/31/2017 00:43	NP
Xylenes, Total	3700	250		ug/L	237205	50	01/31/2017 15:27	NP
Surr: 4-Bromofluorobenzene	89.4	66.1-129		%REC	237205	500	01/31/2017 00:43	NP
Surr: 4-Bromofluorobenzene	101	66.1-129		%REC	237205	50	01/31/2017 15:27	NP
Surr: Dibromofluoromethane	102	83.6-123		%REC	237205	50	01/31/2017 15:27	NP
Surr: Dibromofluoromethane	110	83.6-123		%REC	237205	500	01/31/2017 00:43	NP
Surr: Toluene-d8	92.7	81.8-118		%REC	237205	50	01/31/2017 15:27	NP
Surr: Toluene-d8	94.1	81.8-118		%REC	237205	500	01/31/2017 00:43	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:47	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:47	JS
Barium	0.131	0.00400		mg/L	237132	1	02/01/2017 02:47	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:47	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:47	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:47	JS
Copper	0.0211	0.0100		mg/L	237132	1	02/01/2017 02:47	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:47	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:47	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:47	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:47	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:47	JS
Zinc	0.147	0.0200		mg/L	237132	1	02/01/2017 02:47	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	5400	500		ug/L	237012	1000	01/31/2017 21:04	YH
Acenaphthylene	74	5.0		ug/L	237012	100	01/31/2017 18:57	YH
Acenaphthene	21	5.0		ug/L	237012	100	01/31/2017 18:57	YH
Fluorene	15	10		ug/L	237012	100	01/31/2017 18:57	YH
Phenanthrene	13	5.0		ug/L	237012	100	01/31/2017 18:57	YH
Anthracene	3.3	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Fluoranthene	1.6	0.10		ug/L	237012	1	01/30/2017 17:40	YH
Pyrene	2.2	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Benz(a)anthracene	0.41	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Chrysene	0.32	0.050		ug/L	237012	1	01/30/2017 17:40	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-003

Client Sample ID: MW-600-0117
 Collection Date: 1/25/2017 12:48:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	0.20	0.10		ug/L	237012	1	01/30/2017 17:40	YH
Benzo(k)fluoranthene	0.085	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Benzo(a)pyrene	0.23	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Indeno(1,2,3-cd)pyrene	0.079	0.050		ug/L	237012	1	01/30/2017 17:40	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 17:40	YH
Benzo(g,h,i)perylene	0.11	0.10		ug/L	237012	1	01/30/2017 17:40	YH
Surr: 4-Terphenyl-d14	95.3	58.5-125		%REC	237012	1	01/30/2017 17:40	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 16:55	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-004

Client Sample ID: DUP-3-0117
Collection Date: 1/25/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	2500		ug/L	237205	50	01/31/2017 15:51	NP
Benzene	27000	2500		ug/L	237205	500	01/31/2017 01:52	NP
Carbon disulfide	BRL	250		ug/L	237205	50	01/31/2017 15:51	NP
Ethylbenzene	2700	250		ug/L	237205	50	01/31/2017 15:51	NP
Methylene chloride	BRL	250		ug/L	237205	50	01/31/2017 15:51	NP
Trichloroethene	BRL	250		ug/L	237205	50	01/31/2017 15:51	NP
Toluene	10000	2500		ug/L	237205	500	01/31/2017 01:52	NP
Xylenes, Total	3700	250		ug/L	237205	50	01/31/2017 15:51	NP
Surr: 4-Bromofluorobenzene	88.5	66.1-129		%REC	237205	500	01/31/2017 01:52	NP
Surr: 4-Bromofluorobenzene	101	66.1-129		%REC	237205	50	01/31/2017 15:51	NP
Surr: Dibromofluoromethane	102	83.6-123		%REC	237205	50	01/31/2017 15:51	NP
Surr: Dibromofluoromethane	110	83.6-123		%REC	237205	500	01/31/2017 01:52	NP
Surr: Toluene-d8	91.4	81.8-118		%REC	237205	50	01/31/2017 15:51	NP
Surr: Toluene-d8	92.6	81.8-118		%REC	237205	500	01/31/2017 01:52	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 02:54	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 02:54	JS
Barium	0.139	0.00400		mg/L	237132	1	02/01/2017 02:54	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 02:54	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 02:54	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:54	JS
Copper	0.0200	0.0100		mg/L	237132	1	02/01/2017 02:54	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 02:54	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 02:54	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 02:54	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 02:54	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 02:54	JS
Zinc	0.142	0.0200		mg/L	237132	1	02/01/2017 02:54	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	5700	500		ug/L	237012	1000	01/31/2017 21:31	YH
Acenaphthylene	79	5.0		ug/L	237012	100	01/31/2017 19:23	YH
Acenaphthene	21	5.0		ug/L	237012	100	01/31/2017 19:23	YH
Fluorene	17	10		ug/L	237012	100	01/31/2017 19:23	YH
Phenanthrene	14	5.0		ug/L	237012	100	01/31/2017 19:23	YH
Anthracene	3.4	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Fluoranthene	1.8	0.10		ug/L	237012	1	01/30/2017 18:06	YH
Pyrene	2.4	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Benz(a)anthracene	0.50	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Chrysene	0.38	0.050		ug/L	237012	1	01/30/2017 18:06	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-004

Client Sample ID: DUP-3-0117
 Collection Date: 1/25/2017 12:00:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	0.23	0.10		ug/L	237012	1	01/30/2017 18:06	YH
Benzo(k)fluoranthene	0.11	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Benzo(a)pyrene	0.26	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Indeno(1,2,3-cd)pyrene	0.092	0.050		ug/L	237012	1	01/30/2017 18:06	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 18:06	YH
Benzo(g,h,i)perylene	0.13	0.10		ug/L	237012	1	01/30/2017 18:06	YH
Surr: 4-Terphenyl-d14	103	58.5-125		%REC	237012	1	01/30/2017 18:06	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 16:57	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-005

Client Sample ID: MW-511BR-0117
Collection Date: 1/25/2017 2:57:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 04:35	NP
Benzene	40	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 04:35	NP
Surr: 4-Bromofluorobenzene	88	66.1-129		%REC	237205	1	01/31/2017 04:35	NP
Surr: Dibromofluoromethane	108	83.6-123		%REC	237205	1	01/31/2017 04:35	NP
Surr: Toluene-d8	93.7	81.8-118		%REC	237205	1	01/31/2017 04:35	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:00	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:00	JS
Barium	0.0312	0.00400		mg/L	237132	1	02/01/2017 03:00	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:00	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:00	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:00	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:00	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:00	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 03:00	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:00	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:00	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:00	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 03:00	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	11	5.0		ug/L	237012	100	01/31/2017 19:48	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 18:31	YH
Acenaphthene	0.50	0.50		ug/L	237012	1	01/30/2017 18:31	YH
Fluorene	0.13	0.10		ug/L	237012	1	01/30/2017 18:31	YH
Phenanthrene	0.13	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 18:31	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 18:31	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-005

Client Sample ID: MW-511BR-0117
 Collection Date: 1/25/2017 2:57:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:31	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 18:31	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 18:31	YH
Surr: 4-Terphenyl-d14	99.5	58.5-125		%REC	237012	1	01/30/2017 18:31	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 16:59	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-006

Client Sample ID: MW-402D-0117
Collection Date: 1/25/2017 10:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 04:59	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 04:59	NP
Surr: 4-Bromofluorobenzene	85.6	66.1-129		%REC	237205	1	01/31/2017 04:59	NP
Surr: Dibromofluoromethane	114	83.6-123		%REC	237205	1	01/31/2017 04:59	NP
Surr: Toluene-d8	96.7	81.8-118		%REC	237205	1	01/31/2017 04:59	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:06	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:06	JS
Barium	0.0845	0.00400		mg/L	237132	1	02/01/2017 03:06	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:06	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:06	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:06	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:06	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:06	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 03:06	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:06	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:06	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:06	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 03:06	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 18:57	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 18:57	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 18:57	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 18:57	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 18:57	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 18:57	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-006

Client Sample ID: MW-402D-0117
 Collection Date: 1/25/2017 10:25:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 18:57	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 18:57	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 18:57	YH
Surr: 4-Terphenyl-d14	109	58.5-125		%REC	237012	1	01/30/2017 18:57	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 16:35	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-007

Client Sample ID: MW-402S-0117
Collection Date: 1/25/2017 11:40:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 05:22	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 05:22	NP
Surr: 4-Bromofluorobenzene	85.2	66.1-129		%REC	237205	1	01/31/2017 05:22	NP
Surr: Dibromofluoromethane	116	83.6-123		%REC	237205	1	01/31/2017 05:22	NP
Surr: Toluene-d8	97.4	81.8-118		%REC	237205	1	01/31/2017 05:22	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:12	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:12	JS
Barium	0.0766	0.00400		mg/L	237132	1	02/01/2017 03:12	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:12	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:12	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:12	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:12	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:12	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 03:12	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:12	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:12	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:12	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 03:12	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237012	1	01/30/2017 19:23	YH
Acenaphthylene	BRL	1.0		ug/L	237012	1	01/30/2017 19:23	YH
Acenaphthene	BRL	0.50		ug/L	237012	1	01/30/2017 19:23	YH
Fluorene	BRL	0.10		ug/L	237012	1	01/30/2017 19:23	YH
Phenanthrene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 19:23	YH
Pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Benz(a)anthracene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Chrysene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237012	1	01/30/2017 19:23	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-007

Client Sample ID: MW-402S-0117
 Collection Date: 1/25/2017 11:40:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237012	1	01/30/2017 19:23	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237012	1	01/30/2017 19:23	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237012	1	01/30/2017 19:23	YH
Surr: 4-Terphenyl-d14	98.5	58.5-125		%REC	237012	1	01/30/2017 19:23	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:01	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-008

Client Sample ID: MW-19-0117
Collection Date: 1/25/2017 2:40:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 05:46	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 05:46	NP
Surr: 4-Bromofluorobenzene	83.2	66.1-129		%REC	237205	1	01/31/2017 05:46	NP
Surr: Dibromofluoromethane	115	83.6-123		%REC	237205	1	01/31/2017 05:46	NP
Surr: Toluene-d8	97.2	81.8-118		%REC	237205	1	01/31/2017 05:46	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:18	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:18	JS
Barium	0.0630	0.00400		mg/L	237132	1	02/01/2017 03:18	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:18	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:18	JS
Chromium	0.0114	0.0100		mg/L	237132	1	02/01/2017 03:18	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:18	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:18	JS
Nickel	0.0300	0.0200		mg/L	237132	1	02/01/2017 03:18	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:18	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:18	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:18	JS
Zinc	0.0745	0.0200		mg/L	237132	1	02/01/2017 03:18	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 21:59	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 21:59	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 21:59	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 21:59	YH
Phenanthrene	0.051	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Anthracene	0.24	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 21:59	YH
Pyrene	0.19	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Benz(a)anthracene	0.095	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Chrysene	0.075	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Benzo(b)fluoranthene	0.12	0.10		ug/L	237011	1	01/27/2017 21:59	YH
Benzo(k)fluoranthene	0.056	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Benzo(a)pyrene	0.082	0.050		ug/L	237011	1	01/27/2017 21:59	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-008

Client Sample ID: MW-19-0117
 Collection Date: 1/25/2017 2:40:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	0.069	0.050		ug/L	237011	1	01/27/2017 21:59	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 21:59	YH
Benzo(g,h,i)perylene	0.10	0.10		ug/L	237011	1	01/27/2017 21:59	YH
Surr: 4-Terphenyl-d14	118	58.5-125		%REC	237011	1	01/27/2017 21:59	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:02	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-009

Client Sample ID: DUP-6-0117
Collection Date: 1/25/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 06:56	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 06:56	NP
Surr: 4-Bromofluorobenzene	83.8	66.1-129		%REC	237205	1	01/31/2017 06:56	NP
Surr: Dibromofluoromethane	113	83.6-123		%REC	237205	1	01/31/2017 06:56	NP
Surr: Toluene-d8	97.7	81.8-118		%REC	237205	1	01/31/2017 06:56	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:43	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:43	JS
Barium	0.0629	0.00400		mg/L	237132	1	02/01/2017 03:43	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:43	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:43	JS
Chromium	0.0109	0.0100		mg/L	237132	1	02/01/2017 03:43	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:43	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:43	JS
Nickel	0.0300	0.0200		mg/L	237132	1	02/01/2017 03:43	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:43	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:43	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:43	JS
Zinc	0.0758	0.0200		mg/L	237132	1	02/01/2017 03:43	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 22:25	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 22:25	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 22:25	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 22:25	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Anthracene	0.16	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 22:25	YH
Pyrene	0.11	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Benz(a)anthracene	0.056	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 22:25	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Benzo(a)pyrene	0.051	0.050		ug/L	237011	1	01/27/2017 22:25	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client:	AMEC E&I, Inc. -Kennesaw	Client Sample ID:	DUP-6-0117
Project Name:	AGL - Augusta	Collection Date:	1/25/2017 12:00:00 PM
Lab ID:	1701M29-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 22:25	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 22:25	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 22:25	YH
Surr: 4-Terphenyl-d14	99.3	58.5-125		%REC	237011	1	01/27/2017 22:25	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:04	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-010

Client Sample ID: MW-205-0117
Collection Date: 1/25/2017 1:59:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 08:07	NP
Benzene	690	50		ug/L	237205	10	01/31/2017 08:35	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Ethylbenzene	110	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Toluene	130	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Xylenes, Total	110	5.0		ug/L	237205	1	01/31/2017 08:07	NP
Surr: 4-Bromofluorobenzene	92.6	66.1-129		%REC	237205	10	01/31/2017 08:35	NP
Surr: 4-Bromofluorobenzene	98.6	66.1-129		%REC	237205	1	01/31/2017 08:07	NP
Surr: Dibromofluoromethane	107	83.6-123		%REC	237205	1	01/31/2017 08:07	NP
Surr: Dibromofluoromethane	109	83.6-123		%REC	237205	10	01/31/2017 08:35	NP
Surr: Toluene-d8	91.9	81.8-118		%REC	237205	10	01/31/2017 08:35	NP
Surr: Toluene-d8	92.3	81.8-118		%REC	237205	1	01/31/2017 08:07	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:49	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:49	JS
Barium	0.00772	0.00400		mg/L	237132	1	02/01/2017 03:49	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:49	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:49	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:49	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:49	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:49	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 03:49	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:49	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:49	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:49	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 03:49	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	210	50		ug/L	237011	100	01/31/2017 13:42	YH
Acenaphthylene	6.6	1.0		ug/L	237011	1	02/01/2017 11:53	YH
Acenaphthene	9.1	0.50		ug/L	237011	1	02/01/2017 11:53	YH
Fluorene	18	10		ug/L	237011	100	01/31/2017 13:42	YH
Phenanthrene	24	5.0		ug/L	237011	100	01/31/2017 13:42	YH
Anthracene	3.6	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Fluoranthene	4.8	0.10		ug/L	237011	1	02/01/2017 11:53	YH
Pyrene	6.1	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Benz(a)anthracene	0.92	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Chrysene	0.69	0.050		ug/L	237011	1	02/01/2017 11:53	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-010

Client Sample ID: MW-205-0117
Collection Date: 1/25/2017 1:59:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Benzo(b)fluoranthene	0.27	0.10		ug/L	237011	1	02/01/2017 11:53	YH
Benzo(k)fluoranthene	0.13	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Benzo(a)pyrene	0.33	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Indeno(1,2,3-cd)pyrene	0.12	0.050		ug/L	237011	1	02/01/2017 11:53	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	02/01/2017 11:53	YH
Benzo(g,h,i)perylene	0.14	0.10		ug/L	237011	1	02/01/2017 11:53	YH
Surr: 4-Terphenyl-d14	111	58.5-125		%REC	237011	1	02/01/2017 11:53	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:06	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-011

Client Sample ID: MW-213-0117
Collection Date: 1/25/2017 12:31:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	500		ug/L	237205	10	01/31/2017 16:14	NP
Benzene	7500	250		ug/L	237205	50	01/31/2017 02:15	NP
Carbon disulfide	BRL	50		ug/L	237205	10	01/31/2017 16:14	NP
Ethylbenzene	1600	50		ug/L	237205	10	01/31/2017 16:14	NP
Methylene chloride	BRL	50		ug/L	237205	10	01/31/2017 16:14	NP
Trichloroethene	BRL	50		ug/L	237205	10	01/31/2017 16:14	NP
Toluene	180	50		ug/L	237205	10	01/31/2017 16:14	NP
Xylenes, Total	910	50		ug/L	237205	10	01/31/2017 16:14	NP
Surr: 4-Bromofluorobenzene	90.8	66.1-129		%REC	237205	50	01/31/2017 02:15	NP
Surr: 4-Bromofluorobenzene	102	66.1-129		%REC	237205	10	01/31/2017 16:14	NP
Surr: Dibromofluoromethane	111	83.6-123		%REC	237205	50	01/31/2017 02:15	NP
Surr: Dibromofluoromethane	101	83.6-123		%REC	237205	10	01/31/2017 16:14	NP
Surr: Toluene-d8	93.7	81.8-118		%REC	237205	50	01/31/2017 02:15	NP
Surr: Toluene-d8	91.6	81.8-118		%REC	237205	10	01/31/2017 16:14	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 03:56	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 03:56	JS
Barium	0.916	0.00400		mg/L	237132	1	02/01/2017 03:56	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 03:56	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 03:56	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:56	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 03:56	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 03:56	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 03:56	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 03:56	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 03:56	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 03:56	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 03:56	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	6200	500		ug/L	237011	1000	01/31/2017 15:28	YH
Acenaphthylene	39	5.0		ug/L	237011	100	01/31/2017 14:34	YH
Acenaphthene	98	50		ug/L	237011	100	01/31/2017 14:34	YH
Fluorene	18	10		ug/L	237011	100	01/31/2017 14:34	YH
Phenanthrene	21	5.0		ug/L	237011	100	01/31/2017 14:34	YH
Anthracene	3.8	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Fluoranthene	0.57	0.10		ug/L	237011	1	02/01/2017 12:19	YH
Pyrene	0.62	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Chrysene	BRL	0.050		ug/L	237011	1	02/01/2017 12:19	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-011

Client Sample ID: MW-213-0117
 Collection Date: 1/25/2017 12:31:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	02/01/2017 12:19	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	02/01/2017 12:19	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	02/01/2017 12:19	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	02/01/2017 12:19	YH
Surr: 4-Terphenyl-d14	119	58.5-125		%REC	237011	1	02/01/2017 12:19	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:12	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-012

Client Sample ID: MW-214-0117
Collection Date: 1/25/2017 10:45:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 06:10	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 06:10	NP
Surr: 4-Bromofluorobenzene	84.5	66.1-129		%REC	237205	1	01/31/2017 06:10	NP
Surr: Dibromofluoromethane	116	83.6-123		%REC	237205	1	01/31/2017 06:10	NP
Surr: Toluene-d8	96.5	81.8-118		%REC	237205	1	01/31/2017 06:10	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 04:02	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 04:02	JS
Barium	0.338	0.00400		mg/L	237132	1	02/01/2017 04:02	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 04:02	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 04:02	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 04:02	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 04:02	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 04:02	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 04:02	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 04:02	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 04:02	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 04:02	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 04:02	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/30/2017 20:40	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/30/2017 20:40	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/30/2017 20:40	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/30/2017 20:40	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/30/2017 20:40	YH
Pyrene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/30/2017 20:40	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-012

Client Sample ID: MW-214-0117
Collection Date: 1/25/2017 10:45:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/30/2017 20:40	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/30/2017 20:40	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/30/2017 20:40	YH
Surr: 4-Terphenyl-d14	105	58.5-125		%REC	237011	1	01/30/2017 20:40	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:14	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M29-013

Client Sample ID: MW-22-0117
Collection Date: 1/25/2017 9:33:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237205	1	01/31/2017 06:33	NP
Benzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Carbon disulfide	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Ethylbenzene	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Methylene chloride	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Trichloroethene	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Toluene	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Xylenes, Total	BRL	5.0		ug/L	237205	1	01/31/2017 06:33	NP
Surr: 4-Bromofluorobenzene	83.6	66.1-129		%REC	237205	1	01/31/2017 06:33	NP
Surr: Dibromofluoromethane	114	83.6-123		%REC	237205	1	01/31/2017 06:33	NP
Surr: Toluene-d8	96.9	81.8-118		%REC	237205	1	01/31/2017 06:33	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237132	1	02/01/2017 04:08	JS
Arsenic	BRL	0.0500		mg/L	237132	1	02/01/2017 04:08	JS
Barium	0.0284	0.00400		mg/L	237132	1	02/01/2017 04:08	JS
Beryllium	BRL	0.00400		mg/L	237132	1	02/01/2017 04:08	JS
Cadmium	BRL	0.00500		mg/L	237132	1	02/01/2017 04:08	JS
Chromium	BRL	0.0100		mg/L	237132	1	02/01/2017 04:08	JS
Copper	BRL	0.0100		mg/L	237132	1	02/01/2017 04:08	JS
Lead	BRL	0.0100		mg/L	237132	1	02/01/2017 04:08	JS
Nickel	BRL	0.0200		mg/L	237132	1	02/01/2017 04:08	JS
Selenium	BRL	0.0200		mg/L	237132	1	02/01/2017 04:08	JS
Thallium	BRL	0.00200		mg/L	237132	1	02/01/2017 04:08	JS
Vanadium	BRL	0.0100		mg/L	237132	1	02/01/2017 04:08	JS
Zinc	BRL	0.0200		mg/L	237132	1	02/01/2017 04:08	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/31/2017 12:24	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/31/2017 12:24	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/31/2017 12:24	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/31/2017 12:24	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/31/2017 12:24	YH
Pyrene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/31/2017 12:24	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M29-013

Client Sample ID: MW-22-0117
 Collection Date: 1/25/2017 9:33:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/31/2017 12:24	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/31/2017 12:24	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/31/2017 12:24	YH
Surr: 4-Terphenyl-d14	102	58.5-125		%REC	237011	1	01/31/2017 12:24	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237236	1	02/01/2017 17:16	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-512BR-0117 Lab ID: 1701M29-002 Collection Date: 1/25/2017 10:37:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	198		0.180	4.00	ug/L	237132	1
Client Sample ID: MW-600-0117 Lab ID: 1701M29-003 Collection Date: 1/25/2017 12:48:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	27000		68	2500	ug/L	237205	500
Ethylbenzene	2700		10	250	ug/L	237205	50
Toluene	10000		100	2500	ug/L	237205	500
Xylenes, Total	3700		15	250	ug/L	237205	50
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	131		0.180	4.00	ug/L	237132	1
Copper	21.1		0.228	10.0	ug/L	237132	1
Zinc	147		3.92	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	5400		7.2	500	ug/L	237012	1000
Acenaphthylene	74		2.0	5.0	ug/L	237012	100
Acenaphthene	21		1.7	5.0	ug/L	237012	100
Fluorene	15		1.9	10	ug/L	237012	100
Phenanthrene	13		2.2	5.0	ug/L	237012	100
Anthracene	3.3		0.026	0.050	ug/L	237012	1
Fluoranthene	1.6		0.016	0.10	ug/L	237012	1
Pyrene	2.2		0.015	0.050	ug/L	237012	1
Benz(a)anthracene	0.41		0.018	0.050	ug/L	237012	1
Chrysene	0.32		0.017	0.050	ug/L	237012	1
Benzo(b)fluoranthene	0.20		0.020	0.10	ug/L	237012	1
Benzo(k)fluoranthene	0.085		0.026	0.050	ug/L	237012	1
Benzo(a)pyrene	0.23		0.022	0.050	ug/L	237012	1
Indeno(1,2,3-cd)pyrene	0.079		0.012	0.050	ug/L	237012	1
Benzo(g,h,i)perylene	0.11		0.014	0.10	ug/L	237012	1
Client Sample ID: DUP-3-0117 Lab ID: 1701M29-004 Collection Date: 1/25/2017 12:00:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	27000		68	2500	ug/L	237205	500
Ethylbenzene	2700		10	250	ug/L	237205	50
Toluene	10000		100	2500	ug/L	237205	500
Xylenes, Total	3700		15	250	ug/L	237205	50
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	139		0.180	4.00	ug/L	237132	1
Copper	20.0		0.228	10.0	ug/L	237132	1
Zinc	142		3.92	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	5700		7.2	500	ug/L	237012	1000
Acenaphthylene	79		2.0	5.0	ug/L	237012	100
Acenaphthene	21		1.7	5.0	ug/L	237012	100
Fluorene	17		1.9	10	ug/L	237012	100

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: DUP-3-0117				Lab ID: 1701M29-004			
Collection Date: 1/25/2017 12:00:00 PM				Matrix: Groundwater			
SIM Polynuclear Aromatic Hydrocarbons		SW8270D		(SW3510C)			
Phenanthrene	14		2.2	5.0	ug/L	237012	100
Anthracene	3.4		0.026	0.050	ug/L	237012	1
Fluoranthene	1.8		0.016	0.10	ug/L	237012	1
Pyrene	2.4		0.015	0.050	ug/L	237012	1
Benz(a)anthracene	0.50		0.018	0.050	ug/L	237012	1
Chrysene	0.38		0.017	0.050	ug/L	237012	1
Benzo(b)fluoranthene	0.23		0.020	0.10	ug/L	237012	1
Benzo(k)fluoranthene	0.11		0.026	0.050	ug/L	237012	1
Benzo(a)pyrene	0.26		0.022	0.050	ug/L	237012	1
Indeno(1,2,3-cd)pyrene	0.092		0.012	0.050	ug/L	237012	1
Benzo(g,h,i)perylene	0.13		0.014	0.10	ug/L	237012	1
Client Sample ID: MW-511BR-0117				Lab ID: 1701M29-005			
Collection Date: 1/25/2017 2:57:00 PM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS		SW8260B		(SW5030B)			
Benzene	40		0.14	5.0	ug/L	237205	1
Total Metals by ICP/MS		SW6020B		(SW3005A)			
Barium	31.2		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons		SW8270D		(SW3510C)			
Naphthalene	11		0.72	5.0	ug/L	237012	100
Acenaphthene	0.50		0.017	0.50	ug/L	237012	1
Fluorene	0.13		0.019	0.10	ug/L	237012	1
Phenanthrene	0.13		0.022	0.050	ug/L	237012	1
Client Sample ID: MW-402D-0117				Lab ID: 1701M29-006			
Collection Date: 1/25/2017 10:25:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS		SW6020B		(SW3005A)			
Barium	84.5		0.180	4.00	ug/L	237132	1
Client Sample ID: MW-402S-0117				Lab ID: 1701M29-007			
Collection Date: 1/25/2017 11:40:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS		SW6020B		(SW3005A)			
Barium	76.6		0.180	4.00	ug/L	237132	1
Client Sample ID: MW-19-0117				Lab ID: 1701M29-008			
Collection Date: 1/25/2017 2:40:00 PM				Matrix: Groundwater			
Total Metals by ICP/MS		SW6020B		(SW3005A)			
Barium	63.0		0.180	4.00	ug/L	237132	1
Chromium	11.4		0.137	10.0	ug/L	237132	1
Nickel	30.0		0.132	20.0	ug/L	237132	1
Zinc	74.5		3.92	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons		SW8270D		(SW3510C)			
Phenanthrene	0.051		0.022	0.050	ug/L	237011	1
Anthracene	0.24		0.026	0.050	ug/L	237011	1
Pyrene	0.19		0.015	0.050	ug/L	237011	1
Benz(a)anthracene	0.095		0.018	0.050	ug/L	237011	1
Chrysene	0.075		0.017	0.050	ug/L	237011	1

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-19-0117 Lab ID: 1701M29-008 Collection Date: 1/25/2017 2:40:00 PM Matrix: Groundwater							
SIM Polynuclear Aromatic Hydrocarbons SW8270D (SW3510C)							
Benzo(b)fluoranthene	0.12		0.020	0.10	ug/L	237011	1
Benzo(k)fluoranthene	0.056		0.026	0.050	ug/L	237011	1
Benzo(a)pyrene	0.082		0.022	0.050	ug/L	237011	1
Indeno(1,2,3-cd)pyrene	0.069		0.012	0.050	ug/L	237011	1
Benzo(g,h,i)perylene	0.10		0.014	0.10	ug/L	237011	1
Client Sample ID: DUP-6-0117 Lab ID: 1701M29-009 Collection Date: 1/25/2017 12:00:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B (SW3005A)							
Barium	62.9		0.180	4.00	ug/L	237132	1
Chromium	10.9		0.137	10.0	ug/L	237132	1
Nickel	30.0		0.132	20.0	ug/L	237132	1
Zinc	75.8		3.92	20.0	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D (SW3510C)							
Anthracene	0.16		0.026	0.050	ug/L	237011	1
Pyrene	0.11		0.015	0.050	ug/L	237011	1
Benz(a)anthracene	0.056		0.018	0.050	ug/L	237011	1
Benzo(a)pyrene	0.051		0.022	0.050	ug/L	237011	1
Client Sample ID: MW-205-0117 Lab ID: 1701M29-010 Collection Date: 1/25/2017 1:59:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)							
Benzene	690		1.4	50	ug/L	237205	10
Ethylbenzene	110		0.20	5.0	ug/L	237205	1
Toluene	130		0.20	5.0	ug/L	237205	1
Xylenes, Total	110		0.30	5.0	ug/L	237205	1
Total Metals by ICP/MS SW6020B (SW3005A)							
Barium	7.72		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D (SW3510C)							
Naphthalene	210		0.72	50	ug/L	237011	100
Acenaphthylene	6.6		0.020	1.0	ug/L	237011	1
Acenaphthene	9.1		0.017	0.50	ug/L	237011	1
Fluorene	18		1.9	10	ug/L	237011	100
Phenanthrene	24		2.2	5.0	ug/L	237011	100
Anthracene	3.6		0.026	0.050	ug/L	237011	1
Fluoranthene	4.8		0.016	0.10	ug/L	237011	1
Pyrene	6.1		0.015	0.050	ug/L	237011	1
Benz(a)anthracene	0.92		0.018	0.050	ug/L	237011	1
Chrysene	0.69		0.017	0.050	ug/L	237011	1
Benzo(b)fluoranthene	0.27		0.020	0.10	ug/L	237011	1
Benzo(k)fluoranthene	0.13		0.026	0.050	ug/L	237011	1
Benzo(a)pyrene	0.33		0.022	0.050	ug/L	237011	1
Indeno(1,2,3-cd)pyrene	0.12		0.012	0.050	ug/L	237011	1
Benzo(g,h,i)perylene	0.14		0.014	0.10	ug/L	237011	1
Client Sample ID: MW-213-0117 Lab ID: 1701M29-011 Collection Date: 1/25/2017 12:31:00 PM Matrix: Groundwater							

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-213-0117 Lab ID: 1701M29-011 Collection Date: 1/25/2017 12:31:00 PM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	7500		6.8	250	ug/L	237205	50
Ethylbenzene	1600		2.0	50	ug/L	237205	10
Toluene	180		2.0	50	ug/L	237205	10
Xylenes, Total	910		3.0	50	ug/L	237205	10
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	916		0.180	4.00	ug/L	237132	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	6200		7.2	500	ug/L	237011	1000
Acenaphthylene	39		2.0	5.0	ug/L	237011	100
Acenaphthene	98		1.7	50	ug/L	237011	100
Fluorene	18		1.9	10	ug/L	237011	100
Phenanthrene	21		2.2	5.0	ug/L	237011	100
Anthracene	3.8		0.026	0.050	ug/L	237011	1
Fluoranthene	0.57		0.016	0.10	ug/L	237011	1
Pyrene	0.62		0.015	0.050	ug/L	237011	1
Client Sample ID: MW-214-0117 Lab ID: 1701M29-012 Collection Date: 1/25/2017 10:45:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	338		0.180	4.00	ug/L	237132	1
Client Sample ID: MW-22-0117 Lab ID: 1701M29-013 Collection Date: 1/25/2017 9:33:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	28.4		0.180	4.00	ug/L	237132	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC/Kennesaw

Work Order Number 1701M29

Checklist completed by [Signature] Date 1/26/17

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 29 Cooler #2 2.4 Cooler #3 0.9 Cooler #4 4.4 Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☐ No ☒

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M29

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M29-001A	TB-02-0117	1/25/2017 8:30:00AM	Aqueous	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/30/2017
1701M29-002A	MW-512BR-0117	1/25/2017 10:37:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-002B	MW-512BR-0117	1/25/2017 10:37:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-002C	MW-512BR-0117	1/25/2017 10:37:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-002C	MW-512BR-0117	1/25/2017 10:37:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:14:00AM	02/01/2017
1701M29-002D	MW-512BR-0117	1/25/2017 10:37:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M29-003A	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-003B	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-003B	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-003C	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-003C	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-003D	MW-600-0117	1/25/2017 12:48:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M29-004A	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-004B	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-004B	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-004C	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-004C	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-004D	DUP-3-0117	1/25/2017 12:00:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M29-005A	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-005B	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-005B	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-005C	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-005C	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-005D	MW-511BR-0117	1/25/2017 2:57:00PM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M29-006A	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-006B	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-006C	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-006C	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-006C	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M29

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M29-006D	MW-402D-0117	1/25/2017 10:25:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701M29-007A	MW-402S-0117	1/25/2017 11:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-007B	MW-402S-0117	1/25/2017 11:40:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-007C	MW-402S-0117	1/25/2017 11:40:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-007C	MW-402S-0117	1/25/2017 11:40:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-007D	MW-402S-0117	1/25/2017 11:40:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-008A	MW-19-0117	1/25/2017 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-008B	MW-19-0117	1/25/2017 2:40:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M29-008C	MW-19-0117	1/25/2017 2:40:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-008C	MW-19-0117	1/25/2017 2:40:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-008D	MW-19-0117	1/25/2017 2:40:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-009A	DUP-6-0117	1/25/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-009B	DUP-6-0117	1/25/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M29-009C	DUP-6-0117	1/25/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-009C	DUP-6-0117	1/25/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-009D	DUP-6-0117	1/25/2017 12:00:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-010A	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-010B	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-010B	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	02/01/2017
1701M29-010C	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-010C	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-010D	MW-205-0117	1/25/2017 1:59:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-011A	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-011B	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-011B	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	02/01/2017
1701M29-011C	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-011C	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-011D	MW-213-0117	1/25/2017 12:31:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-012A	MW-214-0117	1/25/2017 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab Order: 1701M29

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M29-012B	MW-214-0117	1/25/2017 10:45:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/30/2017
1701M29-012C	MW-214-0117	1/25/2017 10:45:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-012C	MW-214-0117	1/25/2017 10:45:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-012D	MW-214-0117	1/25/2017 10:45:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M29-013A	MW-22-0117	1/25/2017 9:33:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 9:58:00PM	01/31/2017
1701M29-013B	MW-22-0117	1/25/2017 9:33:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M29-013C	MW-22-0117	1/25/2017 9:33:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/01/2017
1701M29-013C	MW-22-0117	1/25/2017 9:33:00AM	Groundwater	TOTAL MERCURY		2/1/2017 11:10:00AM	02/01/2017
1701M29-013D	MW-22-0117	1/25/2017 9:33:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237011

Sample ID: MB-237011	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237011				Analysis Date: 01/27/2017	Seq No: 7315028			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.306	0	2.000		115	58.5	125				

Sample ID: LCS-237011	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7314316			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.986	0.50	2.000		99.3	69.1	117				
Acenaphthylene	1.807	1.0	2.000		90.3	59.7	118				
Anthracene	2.121	0.050	2.000		106	64.7	121				
Benz(a)anthracene	2.344	0.050	2.000		117	61.7	139				
Benzo(a)pyrene	2.438	0.050	2.000		122	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT**BatchID: 237011**

Sample ID: LCS-237011	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237011				Analysis Date: 01/27/2017	Seq No: 7314316			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	2.051	0.10	2.000	0.02109	102	60.8	129				
Benzo(g,h,i)perylene	2.133	0.10	2.000	0.02217	106	60.1	129				
Benzo(k)fluoranthene	2.217	0.050	2.000		111	69.6	130				
Chrysene	2.338	0.050	2.000		117	76.5	127				
Dibenz(a,h)anthracene	2.190	0.10	2.000	0.02021	108	55.2	126				
Fluoranthene	2.176	0.10	2.000		109	66.5	133				
Fluorene	1.990	0.10	2.000		99.5	66.1	122				
Indeno(1,2,3-cd)pyrene	2.148	0.050	2.000	0.01843	106	58.8	132				
Naphthalene	1.830	0.50	2.000	0.03338	89.8	60.6	120				
Phenanthrene	1.993	0.050	2.000		99.7	65.9	118				
Pyrene	2.318	0.050	2.000	0.02880	114	70.2	129				
Surr: 4-Terphenyl-d14	2.261	0	2.000		113	58.5	125				

Sample ID: 1701M30-007BMS	Client ID:				Units: ug/L		Prep Date: 01/27/2017		Run No: 335233		
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237011		Analysis Date: 01/27/2017		Seq No: 7315857		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.843	0.50	2.000		92.2	49.7	118				
Acenaphthylene	1.741	1.0	2.000		87.1	56.7	120				
Anthracene	2.000	0.050	2.000	0.03907	98.1	54.4	117				
Benz(a)anthracene	2.339	0.050	2.000	0.04991	114	52.4	135				
Benzo(a)pyrene	2.192	0.050	2.000	0.07322	106	51.5	117				
Benzo(b)fluoranthene	1.803	0.10	2.000	0.08269	86.0	45.6	124				
Benzo(g,h,i)perylene	1.864	0.10	2.000	0.1626	85.1	45.9	120				
Benzo(k)fluoranthene	2.025	0.050	2.000	0.09235	96.6	51.8	122				
Chrysene	2.135	0.050	2.000	0.05497	104	59.9	120				
Dibenz(a,h)anthracene	1.723	0.10	2.000	0.1308	79.6	41.6	120				
Fluoranthene	2.097	0.10	2.000	0.03844	103	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT**BatchID: 237011**

Sample ID: 1701M30-007BMS	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7315857			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.902	0.10	2.000		95.1	57.9	117				
Indeno(1,2,3-cd)pyrene	1.876	0.050	2.000	0.1660	85.5	45.5	120				
Naphthalene	1.716	0.50	2.000		85.8	53.9	120				
Phenanthrene	1.837	0.050	2.000	0.03145	90.3	58.1	120				
Pyrene	2.171	0.050	2.000	0.05065	106	61.6	120				
Surr: 4-Terphenyl-d14	2.047	0	2.000		102	58.5	125				

Sample ID: 1701M30-007BMSD	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7315858			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.836	0.50	2.000		91.8	49.7	118	1.843	0.400	17.4	
Acenaphthylene	1.709	1.0	2.000		85.4	56.7	120	1.741	1.91	19.5	
Anthracene	2.081	0.050	2.000	0.03907	102	54.4	117	2.000	3.94	24.5	
Benz(a)anthracene	2.287	0.050	2.000	0.04991	112	52.4	135	2.339	2.25	30.2	
Benzo(a)pyrene	2.166	0.050	2.000	0.07322	105	51.5	117	2.192	1.20	25.6	
Benzo(b)fluoranthene	1.768	0.10	2.000	0.08269	84.3	45.6	124	1.803	1.99	20.9	
Benzo(g,h,i)perylene	1.923	0.10	2.000	0.1626	88.0	45.9	120	1.864	3.13	28.6	
Benzo(k)fluoranthene	1.917	0.050	2.000	0.09235	91.2	51.8	122	2.025	5.47	28.6	
Chrysene	2.112	0.050	2.000	0.05497	103	59.9	120	2.135	1.11	26.4	
Dibenz(a,h)anthracene	1.668	0.10	2.000	0.1308	76.9	41.6	120	1.723	3.21	17.8	
Fluoranthene	2.176	0.10	2.000	0.03844	107	59.7	122	2.097	3.70	22.1	
Fluorene	1.869	0.10	2.000		93.5	57.9	117	1.902	1.75	20.8	
Indeno(1,2,3-cd)pyrene	1.873	0.050	2.000	0.1660	85.3	45.5	120	1.876	0.177	19.3	
Naphthalene	1.697	0.50	2.000		84.9	53.9	120	1.716	1.11	20.6	
Phenanthrene	1.902	0.050	2.000	0.03145	93.5	58.1	120	1.837	3.48	19.4	
Pyrene	2.138	0.050	2.000	0.05065	104	61.6	120	2.171	1.50	21.2	
Surr: 4-Terphenyl-d14	2.362	0	2.000		118	58.5	125	2.047	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237011

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237012

Sample ID: MB-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7316325			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.201	0	2.000		110	58.5	125				

Sample ID: LCS-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7316326			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.862	0.50	2.000		93.1	69.1	117				
--------------	-------	------	-------	--	------	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237012

Sample ID: LCS-237012	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237012	Analysis Date: 01/30/2017	Seq No: 7316326			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthylene	1.726	1.0	2.000		86.3	59.7	118				
Anthracene	2.046	0.050	2.000		102	64.7	121				
Benz(a)anthracene	2.257	0.050	2.000		113	61.7	139				
Benzo(a)pyrene	2.149	0.050	2.000		107	65.1	124				
Benzo(b)fluoranthene	1.867	0.10	2.000		93.3	60.8	129				
Benzo(g,h,i)perylene	1.911	0.10	2.000		95.5	60.1	129				
Benzo(k)fluoranthene	2.076	0.050	2.000		104	69.6	130				
Chrysene	2.286	0.050	2.000		114	76.5	127				
Dibenz(a,h)anthracene	1.659	0.10	2.000		83.0	55.2	126				
Fluoranthene	2.168	0.10	2.000		108	66.5	133				
Fluorene	1.927	0.10	2.000		96.3	66.1	122				
Indeno(1,2,3-cd)pyrene	1.908	0.050	2.000		95.4	58.8	132				
Naphthalene	1.782	0.50	2.000		89.1	60.6	120				
Phenanthrene	1.933	0.050	2.000	0.03097	95.1	65.9	118				
Pyrene	2.207	0.050	2.000		110	70.2	129				
Surr: 4-Terphenyl-d14	2.081	0	2.000		104	58.5	125				

Sample ID: 1701M28-002BMS	Client ID:				Units: ug/L			Prep Date: 01/27/2017	Run No: 335321		
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237012			Analysis Date: 01/30/2017	Seq No: 7317551		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.532	0.50	2.000		76.6	49.7	118				
Acenaphthylene	1.426	1.0	2.000		71.3	56.7	120				
Anthracene	1.614	0.050	2.000		80.7	54.4	117				
Benz(a)anthracene	1.877	0.050	2.000	0.03964	91.9	52.4	135				
Benzo(a)pyrene	1.604	0.050	2.000		80.2	51.5	117				
Benzo(b)fluoranthene	1.250	0.10	2.000	0.02870	61.1	45.6	124				
Benzo(g,h,i)perylene	1.177	0.10	2.000	0.03421	57.1	45.9	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT**BatchID: 237012**

Sample ID: 1701M28-002BMS	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237012	Analysis Date: 01/30/2017	Seq No: 7317551			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(k)fluoranthene	1.425	0.050	2.000	0.02574	70.0	51.8	122				
Chrysene	1.693	0.050	2.000	0.03542	82.9	59.9	120				
Dibenz(a,h)anthracene	1.031	0.10	2.000	0.03041	50.0	41.6	120				
Fluoranthene	1.729	0.10	2.000	0.02614	85.1	59.7	122				
Fluorene	1.569	0.10	2.000		78.5	57.9	117				
Indeno(1,2,3-cd)pyrene	1.220	0.050	2.000	0.03265	59.4	45.5	120				
Naphthalene	1.465	0.50	2.000		73.2	53.9	120				
Phenanthrene	1.504	0.050	2.000	0.03079	73.7	58.1	120				
Pyrene	1.718	0.050	2.000	0.02895	84.5	61.6	120				
Surr: 4-Terphenyl-d14	2.453	0	2.000		123	58.5	125				

Sample ID: 1701M28-002BMSD	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237012	Analysis Date: 01/30/2017	Seq No: 7317552			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.587	0.50	2.000		79.3	49.7	118	1.532	3.53	17.4	
Acenaphthylene	1.503	1.0	2.000		75.1	56.7	120	1.426	5.20	19.5	
Anthracene	1.803	0.050	2.000		90.2	54.4	117	1.614	11.1	24.5	
Benz(a)anthracene	2.149	0.050	2.000	0.03964	105	52.4	135	1.877	13.5	30.2	
Benzo(a)pyrene	1.859	0.050	2.000		93.0	51.5	117	1.604	14.7	25.6	
Benzo(b)fluoranthene	1.425	0.10	2.000	0.02870	69.8	45.6	124	1.250	13.1	20.9	
Benzo(g,h,i)perylene	1.354	0.10	2.000	0.03421	66.0	45.9	120	1.177	14.0	28.6	
Benzo(k)fluoranthene	1.598	0.050	2.000	0.02574	78.6	51.8	122	1.425	11.4	28.6	
Chrysene	1.937	0.050	2.000	0.03542	95.1	59.9	120	1.693	13.5	26.4	
Dibenz(a,h)anthracene	1.219	0.10	2.000	0.03041	59.5	41.6	120	1.031	16.7	17.8	
Fluoranthene	1.890	0.10	2.000	0.02614	93.2	59.7	122	1.729	8.88	22.1	
Fluorene	1.719	0.10	2.000		86.0	57.9	117	1.569	9.11	20.8	
Indeno(1,2,3-cd)pyrene	1.387	0.050	2.000	0.03265	67.7	45.5	120	1.220	12.8	19.3	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237012

Sample ID: 1701M28-002BMSD	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335321			
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237012				Analysis Date: 01/30/2017	Seq No: 7317552			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Naphthalene	1.417	0.50	2.000		70.9	53.9	120	1.465	3.31	20.6	
Phenanthrene	1.660	0.050	2.000	0.03079	81.4	58.1	120	1.504	9.84	19.4	
Pyrene	1.923	0.050	2.000	0.02895	94.7	61.6	120	1.718	11.3	21.2	
Surr: 4-Terphenyl-d14	1.775	0	2.000		88.7	58.5	125	2.453	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT**BatchID: 237132**

Sample ID: MB-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321774			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321775			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09442	0.00500	0.1000		94.4	80	120				
Arsenic	0.09339	0.00500	0.1000		93.4	80	120				
Barium	0.09203	0.0100	0.1000		92.0	80	120				
Beryllium	0.09392	0.00100	0.1000		93.9	80	120				
Cadmium	0.09463	0.000700	0.1000		94.6	80	120				
Chromium	0.09353	0.00500	0.1000	0.0006930	92.8	80	120				
Copper	0.09217	0.00200	0.1000		92.2	80	120				
Lead	0.09155	0.00100	0.1000		91.6	80	120				
Nickel	0.09211	0.00500	0.1000		92.1	80	120				
Selenium	0.09431	0.00500	0.1000		94.3	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237132

Sample ID: LCS-237132	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321775			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.08688	0.00100	0.1000		86.9	80	120				
Vanadium	0.09035	0.00500	0.1000		90.4	80	120				
Zinc	0.09603	0.0100	0.1000		96.0	80	120				

Sample ID: 1701M28-009CMS	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321777			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09458	0.00500	0.1000	0.0003730	94.2	75	125				
Arsenic	0.08952	0.00500	0.1000	0.0003490	89.2	75	125				
Barium	0.2813	0.0100	0.1000	0.1829	98.4	75	125				
Beryllium	0.09588	0.00100	0.1000	0.0001980	95.7	75	125				
Cadmium	0.09477	0.000700	0.1000	0.0006480	94.1	75	125				
Chromium	0.08964	0.00500	0.1000	0.001964	87.7	75	125				
Copper	0.08909	0.00200	0.1000	0.0005540	88.5	75	125				
Lead	0.09119	0.00100	0.1000		91.2	75	125				
Nickel	0.08763	0.00500	0.1000	0.0008850	86.7	75	125				
Selenium	0.08477	0.00500	0.1000	0.0002400	84.5	75	125				
Thallium	0.08616	0.00100	0.1000	0.0001660	86.0	75	125				
Vanadium	0.08543	0.00500	0.1000		85.4	75	125				
Zinc	0.1007	0.0100	0.1000	0.01116	89.5	75	125				

Sample ID: 1701M28-009CMSD	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335542			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237132				Analysis Date: 02/01/2017	Seq No: 7321778			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09278	0.00500	0.1000	0.0003730	92.4	75	125	0.09458	1.92	20	
Arsenic	0.08890	0.00500	0.1000	0.0003490	88.6	75	125	0.08952	0.695	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237132

Sample ID: 1701M28-009CMSD		Client ID:		Units: mg/L		Prep Date: 01/30/2017		Run No: 335542			
SampleType: MSD		TestCode: Total Metals by ICP/MS SW6020B		BatchID: 237132		Analysis Date: 02/01/2017		Seq No: 7321778			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.2789	0.0100	0.1000	0.1829	96.0	75	125	0.2813	0.857	20	
Beryllium	0.09377	0.00100	0.1000	0.0001980	93.6	75	125	0.09588	2.23	20	
Cadmium	0.09307	0.000700	0.1000	0.0006480	92.4	75	125	0.09477	1.81	20	
Chromium	0.08906	0.00500	0.1000	0.001964	87.1	75	125	0.08964	0.649	20	
Copper	0.08806	0.00200	0.1000	0.0005540	87.5	75	125	0.08909	1.16	20	
Lead	0.08992	0.00100	0.1000		89.9	75	125	0.09119	1.40	20	
Nickel	0.08659	0.00500	0.1000	0.0008850	85.7	75	125	0.08763	1.19	20	
Selenium	0.08390	0.00500	0.1000	0.0002400	83.7	75	125	0.08477	1.03	20	
Thallium	0.08518	0.00100	0.1000	0.0001660	85.0	75	125	0.08616	1.14	20	
Vanadium	0.08487	0.00500	0.1000		84.9	75	125	0.08543	0.658	20	
Zinc	0.1011	0.0100	0.1000	0.01116	89.9	75	125	0.1007	0.396	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237205

Sample ID: MB-237205	Client ID:	Units: ug/L				Prep Date: 01/30/2017	Run No: 335414				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205				Analysis Date: 01/30/2017	Seq No: 7318413				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	44.54	0	50.00		89.1	66.1	129				
Surr: Dibromofluoromethane	56.63	0	50.00		113	83.6	123				
Surr: Toluene-d8	47.65	0	50.00		95.3	81.8	118				

Sample ID: LCS-237205	Client ID:	Units: ug/L				Prep Date: 01/30/2017	Run No: 335414				
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205				Analysis Date: 01/30/2017	Seq No: 7318412				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	45.04	5.0	50.00		90.1	74	125				
Toluene	47.42	5.0	50.00		94.8	75.9	126				
Trichloroethene	45.47	5.0	50.00		90.9	70.6	129				
Surr: 4-Bromofluorobenzene	43.85	0	50.00		87.7	66.1	129				
Surr: Dibromofluoromethane	53.83	0	50.00		108	83.6	123				
Surr: Toluene-d8	46.24	0	50.00		92.5	81.8	118				

Sample ID: 1701M29-003AMS	Client ID: MW-600-0117	Units: ug/L			Prep Date: 01/30/2017	Run No: 335414					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205			Analysis Date: 01/31/2017	Seq No: 7318434					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	52210	2500	25000	26510	103	71.6	132				
---------	-------	------	-------	-------	-----	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT**BatchID: 237205**

Sample ID: 1701M29-003AMS	Client ID: MW-600-0117	Units: ug/L			Prep Date: 01/30/2017	Run No: 335414					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205			Analysis Date: 01/31/2017	Seq No: 7318434					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	36200	2500	25000	9965	105	72.5	135				
Trichloroethene	23420	2500	25000		93.7	70.2	132				
Surr: 4-Bromofluorobenzene	22200	0	25000		88.8	66.1	129				
Surr: Dibromofluoromethane	27710	0	25000		111	83.6	123				
Surr: Toluene-d8	23440	0	25000		93.8	81.8	118				

Sample ID: 1701M29-003AMSD	Client ID: MW-600-0117	Units: ug/L			Prep Date: 01/30/2017	Run No: 335414					
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237205			Analysis Date: 01/31/2017	Seq No: 7318435					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50390	2500	25000	26510	95.5	71.6	132	52210	3.55	20.7	
Toluene	35220	2500	25000	9965	101	72.5	135	36200	2.74	23.2	
Trichloroethene	23090	2500	25000		92.3	70.2	132	23420	1.42	27.7	
Surr: 4-Bromofluorobenzene	21990	0	25000		87.9	66.1	129	22200	0	0	
Surr: Dibromofluoromethane	26920	0	25000		108	83.6	123	27710	0	0	
Surr: Toluene-d8	23310	0	25000		93.2	81.8	118	23440	0	0	

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237236

Sample ID: MB-237236	Client ID:	Units: mg/L			Prep Date: 02/01/2017	Run No: 335574					
SampleType: MBLK	TestCode: Mercury, Total SW7470A	BatchID: 237236			Analysis Date: 02/01/2017	Seq No: 7322622					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237236		Client ID:		Units: mg/L		Prep Date: 02/01/2017		Run No: 335574			
SampleType: LCS		TestCode: Mercury, Total SW7470A		BatchID: 237236		Analysis Date: 02/01/2017		Seq No: 7322623			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005420 0.00020 0.0050 108 80 120

Sample ID: 1701M29-006CMS	Client ID: MW-402D-0117	Units: mg/L	Prep Date: 02/01/2017	Run No: 335574							
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 237236	Analysis Date: 02/01/2017	Seq No: 7322625							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005538 0.00020 0.0050 111 70 130

Sample ID: 1701M29-006CMSD	Client ID: MW-402D-0117	Units: mg/L	Prep Date: 02/01/2017	Run No: 335574							
SampleType: MSD	TestCode: Mercury, Total SW7470A	BatchID: 237236	Analysis Date: 02/01/2017	Seq No: 7322626							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005573 0.00020 0.0050 111 70 130 0.005538 0.621 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237237

Sample ID: MB-237237	Client ID:	Units: mg/L				Prep Date: 02/01/2017	Run No: 335567				
SampleType: MBLK	TestCode: Mercury, Total	BatchID: 237237				Analysis Date: 02/01/2017	Seq No: 7322321				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237237		Client ID:			Units: mg/L		Prep Date: 02/01/2017		Run No: 335567		
SampleType: LCS		TestCode: Mercury, Total SW7470A			BatchID: 237237		Analysis Date: 02/01/2017		Seq No: 7322322		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005433 0.00020 0.0050 109 80 120

Sample ID: 1701M28-011CMS	Client ID:				Units: mg/L	Prep Date: 02/01/2017	Run No: 335567				
SampleType: MS	TestCode: Mercury, Total	SW7470A	BatchID: 237237			Analysis Date: 02/01/2017	Seq No: 7322326				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005389 0.00020 0.0050 108 70 130

Sample ID: 1701M28-011CMSD	Client ID:				Units: mg/L	Prep Date: 02/01/2017	Run No: 335567				
SampleType: MSD	TestCode: Mercury, Total	SW7470A	BatchID: 237237			Analysis Date: 02/01/2017	Seq No: 7322327				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005425 0.00020 0.0050 109 70 130 0.005389 0.663 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237285

Sample ID: MB-237285		Client ID:			Units: mg/L			Prep Date: 01/31/2017		Run No: 335502	
SampleType: MBLK		TestCode: Cyanide SW9014			BatchID: 237285			Analysis Date: 01/31/2017		Seq No: 7320743	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237285		Client ID:			Units: mg/L			Prep Date: 01/31/2017		Run No: 335502	
SampleType: LCS		TestCode: Cyanide SW9014			BatchID: 237285			Analysis Date: 01/31/2017		Seq No: 7320744	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-001DMS	Client ID:				Units: mg/L	Prep Date: 01/31/2017	Run No: 335502				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 237285	Analysis Date: 01/31/2017	Seq No: 7320765				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2330 0.010 0.2500 93.2 70 130

Sample ID: 1701O62-001DMSD					Client ID:			Units: mg/L		Prep Date: 01/31/2017		Run No: 335502														
SampleType: MSD					TestCode: Cyanide SW9014			BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320769														
Analyte					Result		RPT Limit		SPK value		SPK Ref Val		%REC		Low Limit		High Limit		RPD Ref Val		%RPD		RPD Limit		Qual	

Cyanide, Total 0.2570 0.010 0.2500 103 70 130 0.2330 9.80 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M29

ANALYTICAL QC SUMMARY REPORT

BatchID: 237286

Sample ID: MB-237286	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335504			
SampleType: MBLK	TestCode: Cyanide SW9014					BatchID: 237286	Analysis Date: 01/31/2017	Seq No: 7320805			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237286		Client ID:			Units: mg/L		Prep Date: 01/31/2017		Run No: 335504		
SampleType: LCS		TestCode: Cyanide SW9014			BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320806		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-003DMS	Client ID:				Units: mg/L	Prep Date: 01/31/2017	Run No: 335504				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 237286	Analysis Date: 01/31/2017	Seq No: 7320832				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.1930 0.010 0.2500 77.2 70 130

Sample ID: 1701O62-003DMSD					Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335504	
SampleType: MSD					TestCode: Cyanide SW9014		BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320835	
Analyte					Result		RPT Limit		SPK value		SPK Ref Val	
							%REC		Low Limit		High Limit	
							RPD Ref Val		%RPD		RPD Limit	
					Qual							

Cyanide, Total 0.1980 0.010 0.2500 79.2 70 130 0.1930 2.56 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 03, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701M30

Analytical Environmental Services, Inc. received 12 samples on 1/26/2017 10:11:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1701m30

Date: 1/25/16 Page 1 of 1

COMPANY: Amec Foster Wheeler		ADDRESS: 1075 Bie Shanty Rd. Ste. 100 Kennesaw, GA 30144		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers			
PHONE: 770-421-3400		FAX: 770-421-3486		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC LIST</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8260</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PAHS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8270C</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VME+135HS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">6020-7470A</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CN 9014</div> </div>																	
SAMPLED BY: Jeff Moore		SIGNATURE: [Signature]		PRESERVATION (See codes)												REMARKS					
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	#	I	N	25	25										
1	MW-5050-0117	1-24-17	9:33	X		GW	2	2	1	1								6			
2	MW-304-0117	1-24-17	10:35	X		GW	2	2	1	1								6			
3	MW-602-0117	1-24-17	11:35	X		GW	2	2	1	1								6			
4	MW-303-0117	1-24-17	12:28	X		GW	2	2	1	1								6			
5	MW-309BR-0117	1-24-17	1:20	X		GW	2	2	1	1								6			
6	MW-206-0117	1-24-17	2:34	X		GW	2	2	1	1								6			
7	MW-203-0117	1-25-17	8:40	X		GW	2	2	1	1								6			
8	MW-202DR-0117	1-25-17	9:42	X		GW	2	2	1	1								6			
9	MW-601-0117	1-25-17	10:42	X		GW	2	2	1	1								6			
10	MW-21-0117	1-25-17	11:53	X		GW	2	2	1	1								6			
11	MW-313-0117	1-25-17	12:48	X		GW	2	2	1	1								6			
12	MW-325-0117	1-25-17	1:55	X		GW	2	2	1	1								6			
13																					
14																					
RELINQUISHED BY: Daniel L. Howard		DATE/TIME: 1/25/17 17:15		RECEIVED BY: [Signature]		DATE/TIME: 1/26/17 10:11		PROJECT INFORMATION												RECEIPT	
2:				2:				PROJECT NAME: AGL Augusta												Total # of Containers	
3:				3:				PROJECT #: 6122150235												<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other	
								SITE ADDRESS: Augusta, GA													
								SEND REPORT TO: John Quinn													
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				INVOICE TO:												STATE PROGRAM (if any):	
				OUT / / VIA:				(IF DIFFERENT FROM ABOVE)												E-mail? <input checked="" type="radio"/> Y / N Fax? Y / N	
				IN / / VIA:																DATA PACKAGE: I II III IV	
				CLIENT <input checked="" type="radio"/> FEDEX UPS MAIL COURIER																	
				GREYHOUND OTHER				QUOTE #: PO#:													

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

1701M28
1701M29
1701M30

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony -0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Client: AMEC E&I, Inc. -Kennesaw**Project:** AGL - Augusta**Lab ID:** 1701M30**Case Narrative**

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, sample 1701M30-009A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-001

Client Sample ID: MW-505D-0117
Collection Date: 1/24/2017 9:33:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 16:19	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 16:19	BN
Surr: 4-Bromofluorobenzene	106	66.1-129		%REC	237146	1	01/28/2017 16:19	BN
Surr: Dibromofluoromethane	116	83.6-123		%REC	237146	1	01/28/2017 16:19	BN
Surr: Toluene-d8	97.9	81.8-118		%REC	237146	1	01/28/2017 16:19	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:08	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:08	JS
Barium	0.502	0.00400		mg/L	237133	1	01/31/2017 22:08	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:08	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:08	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:08	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:08	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:08	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:08	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:08	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:08	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:08	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 22:08	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	17	5.0		ug/L	237011	100	01/31/2017 12:49	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 18:09	YH
Acenaphthene	16	5.0		ug/L	237011	100	01/31/2017 12:49	YH
Fluorene	2.6	0.10		ug/L	237011	1	01/27/2017 18:09	YH
Phenanthrene	1.8	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Anthracene	0.32	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Fluoranthene	0.53	0.10		ug/L	237011	1	01/27/2017 18:09	YH
Pyrene	0.83	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 18:09	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:09	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-001

Client Sample ID: MW-505D-0117
Collection Date: 1/24/2017 9:33:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:09	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 18:09	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 18:09	YH
Surr: 4-Terphenyl-d14	97.5	58.5-125		%REC	237011	1	01/27/2017 18:09	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:06	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-002

Client Sample ID: MW-304-0117
Collection Date: 1/24/2017 10:35:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 16:46	BN
Benzene	290	50		ug/L	237146	10	01/30/2017 20:07	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Xylenes, Total	9.7	5.0		ug/L	237146	1	01/28/2017 16:46	BN
Surr: 4-Bromofluorobenzene	104	66.1-129		%REC	237146	1	01/28/2017 16:46	BN
Surr: 4-Bromofluorobenzene	104	66.1-129		%REC	237146	10	01/30/2017 20:07	BN
Surr: Dibromofluoromethane	115	83.6-123		%REC	237146	1	01/28/2017 16:46	BN
Surr: Dibromofluoromethane	121	83.6-123		%REC	237146	10	01/30/2017 20:07	BN
Surr: Toluene-d8	94.7	81.8-118		%REC	237146	1	01/28/2017 16:46	BN
Surr: Toluene-d8	94.2	81.8-118		%REC	237146	10	01/30/2017 20:07	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:14	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:14	JS
Barium	0.354	0.00400		mg/L	237133	1	01/31/2017 22:14	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:14	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:14	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:14	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:14	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:14	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:14	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:14	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:14	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:14	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 22:14	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	21	5.0		ug/L	237011	100	01/31/2017 13:15	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 18:34	YH
Acenaphthene	32	5.0		ug/L	237011	100	01/31/2017 13:15	YH
Fluorene	4.0	0.10		ug/L	237011	1	01/27/2017 18:34	YH
Phenanthrene	2.3	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Anthracene	0.48	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Fluoranthene	0.51	0.10		ug/L	237011	1	01/27/2017 18:34	YH
Pyrene	0.61	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 18:34	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-002

Client Sample ID: MW-304-0117
 Collection Date: 1/24/2017 10:35:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 18:34	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:34	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 18:34	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 18:34	YH
Surr: 4-Terphenyl-d14	108	58.5-125		%REC	237011	1	01/27/2017 18:34	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:21	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-003

Client Sample ID: MW-602-0117
Collection Date: 1/24/2017 11:35:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 17:14	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 17:14	BN
Surr: 4-Bromofluorobenzene	102	66.1-129		%REC	237146	1	01/28/2017 17:14	BN
Surr: Dibromofluoromethane	112	83.6-123		%REC	237146	1	01/28/2017 17:14	BN
Surr: Toluene-d8	93.9	81.8-118		%REC	237146	1	01/28/2017 17:14	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:20	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:20	JS
Barium	0.381	0.00400		mg/L	237133	1	01/31/2017 22:20	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:20	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:20	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:20	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:20	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:20	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:20	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:20	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:20	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:20	JS
Zinc	0.132	0.0200		mg/L	237133	1	01/31/2017 22:20	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 18:59	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 18:59	YH
Acenaphthene	1.7	0.50		ug/L	237011	1	01/27/2017 18:59	YH
Fluorene	0.12	0.10		ug/L	237011	1	01/27/2017 18:59	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Anthracene	0.15	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 18:59	YH
Pyrene	0.080	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 18:59	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-003

Client Sample ID: MW-602-0117
 Collection Date: 1/24/2017 11:35:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 18:59	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 18:59	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 18:59	YH
Surr: 4-Terphenyl-d14	116	58.5-125		%REC	237011	1	01/27/2017 18:59	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:23	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-004

Client Sample ID: MW-303-0117
Collection Date: 1/24/2017 12:28:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/30/2017 18:45	BN
Benzene	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Toluene	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/30/2017 18:45	BN
Surr: 4-Bromofluorobenzene	102	66.1-129		%REC	237146	1	01/30/2017 18:45	BN
Surr: Dibromofluoromethane	121	83.6-123		%REC	237146	1	01/30/2017 18:45	BN
Surr: Toluene-d8	101	81.8-118		%REC	237146	1	01/30/2017 18:45	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:45	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:45	JS
Barium	0.0794	0.00400		mg/L	237133	1	01/31/2017 22:45	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:45	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:45	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:45	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:45	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:45	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:45	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:45	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:45	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:45	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 22:45	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 19:25	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 19:25	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 19:25	YH
Fluorene	0.13	0.10		ug/L	237011	1	01/27/2017 19:25	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Anthracene	0.12	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Fluoranthene	0.18	0.10		ug/L	237011	1	01/27/2017 19:25	YH
Pyrene	0.38	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 19:25	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-004

Client Sample ID: MW-303-0117
Collection Date: 1/24/2017 12:28:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:25	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 19:25	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 19:25	YH
Surr: 4-Terphenyl-d14	107	58.5-125		%REC	237011	1	01/27/2017 19:25	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:25	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-005

Client Sample ID: MW-309BR-0117
Collection Date: 1/24/2017 1:20:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 18:09	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 18:09	BN
Surr: 4-Bromofluorobenzene	97.2	66.1-129		%REC	237146	1	01/28/2017 18:09	BN
Surr: Dibromofluoromethane	117	83.6-123		%REC	237146	1	01/28/2017 18:09	BN
Surr: Toluene-d8	97.1	81.8-118		%REC	237146	1	01/28/2017 18:09	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:51	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:51	JS
Barium	0.402	0.00400		mg/L	237133	1	01/31/2017 22:51	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:51	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:51	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:51	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:51	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:51	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:51	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:51	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:51	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:51	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 22:51	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 19:50	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 19:50	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 19:50	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 19:50	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 19:50	YH
Pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 19:50	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-005

Client Sample ID: MW-309BR-0117
 Collection Date: 1/24/2017 1:20:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 19:50	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 19:50	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 19:50	YH
Surr: 4-Terphenyl-d14	103	58.5-125		%REC	237011	1	01/27/2017 19:50	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:27	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-006

Client Sample ID: MW-206-0117
Collection Date: 1/24/2017 2:34:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 18:37	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 18:37	BN
Surr: 4-Bromofluorobenzene	98.2	66.1-129		%REC	237146	1	01/28/2017 18:37	BN
Surr: Dibromofluoromethane	116	83.6-123		%REC	237146	1	01/28/2017 18:37	BN
Surr: Toluene-d8	96.9	81.8-118		%REC	237146	1	01/28/2017 18:37	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 22:58	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 22:58	JS
Barium	0.262	0.00400		mg/L	237133	1	01/31/2017 22:58	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 22:58	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 22:58	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:58	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 22:58	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 22:58	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 22:58	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 22:58	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 22:58	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 22:58	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 22:58	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 20:16	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 20:16	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 20:16	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 20:16	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 20:16	YH
Pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 20:16	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-006

Client Sample ID: MW-206-0117
Collection Date: 1/24/2017 2:34:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:16	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 20:16	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 20:16	YH
Surr: 4-Terphenyl-d14	103	58.5-125		%REC	237011	1	01/27/2017 20:16	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:29	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-007

Client Sample ID: MW-203-0117
Collection Date: 1/25/2017 8:40:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 19:05	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 19:05	BN
Surr: 4-Bromofluorobenzene	99.1	66.1-129		%REC	237146	1	01/28/2017 19:05	BN
Surr: Dibromofluoromethane	117	83.6-123		%REC	237146	1	01/28/2017 19:05	BN
Surr: Toluene-d8	97	81.8-118		%REC	237146	1	01/28/2017 19:05	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:04	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:04	JS
Barium	0.0504	0.00400		mg/L	237133	1	01/31/2017 23:04	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:04	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:04	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:04	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:04	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:04	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:04	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:04	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:04	JS
Vanadium	0.0112	0.0100		mg/L	237133	1	01/31/2017 23:04	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 23:04	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 14:19	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 14:19	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 14:19	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 14:19	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 14:19	YH
Pyrene	0.051	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Chrysene	0.055	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 14:19	YH
Benzo(k)fluoranthene	0.092	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Benzo(a)pyrene	0.073	0.050		ug/L	237011	1	01/27/2017 14:19	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-007

Client Sample ID: MW-203-0117
 Collection Date: 1/25/2017 8:40:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	0.17	0.050		ug/L	237011	1	01/27/2017 14:19	YH
Dibenz(a,h)anthracene	0.13	0.10		ug/L	237011	1	01/27/2017 14:19	YH
Benzo(g,h,i)perylene	0.16	0.10		ug/L	237011	1	01/27/2017 14:19	YH
Surr: 4-Terphenyl-d14	110	58.5-125		%REC	237011	1	01/27/2017 14:19	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:35	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-008

Client Sample ID: MW-202DR-0117
Collection Date: 1/25/2017 9:42:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 19:32	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 19:32	BN
Surr: 4-Bromofluorobenzene	97.4	66.1-129		%REC	237146	1	01/28/2017 19:32	BN
Surr: Dibromofluoromethane	119	83.6-123		%REC	237146	1	01/28/2017 19:32	BN
Surr: Toluene-d8	94.1	81.8-118		%REC	237146	1	01/28/2017 19:32	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:10	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:10	JS
Barium	0.0640	0.00400		mg/L	237133	1	01/31/2017 23:10	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:10	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:10	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:10	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:10	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:10	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:10	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:10	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:10	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:10	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 23:10	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	3.9	0.50		ug/L	237011	1	01/27/2017 20:41	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 20:41	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 20:41	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 20:41	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 20:41	YH
Pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 20:41	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-008

Client Sample ID: MW-202DR-0117
 Collection Date: 1/25/2017 9:42:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 20:41	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 20:41	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 20:41	YH
Surr: 4-Terphenyl-d14	107	58.5-125		%REC	237011	1	01/27/2017 20:41	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:37	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-009

Client Sample ID: MW-601-0117
Collection Date: 1/25/2017 10:42:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	5000		ug/L	237146	100	01/30/2017 19:40	BN
Benzene	8200	500		ug/L	237146	100	01/30/2017 19:40	BN
Carbon disulfide	BRL	500		ug/L	237146	100	01/30/2017 19:40	BN
Ethylbenzene	570	500		ug/L	237146	100	01/30/2017 19:40	BN
Methylene chloride	BRL	500		ug/L	237146	100	01/30/2017 19:40	BN
Trichloroethene	BRL	500		ug/L	237146	100	01/30/2017 19:40	BN
Toluene	7300	500		ug/L	237146	100	01/30/2017 19:40	BN
Xylenes, Total	2000	500		ug/L	237146	100	01/30/2017 19:40	BN
Surr: 4-Bromofluorobenzene	110	66.1-129		%REC	237146	100	01/30/2017 19:40	BN
Surr: Dibromofluoromethane	122	83.6-123		%REC	237146	100	01/30/2017 19:40	BN
Surr: Toluene-d8	101	81.8-118		%REC	237146	100	01/30/2017 19:40	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:16	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:16	JS
Barium	0.0937	0.00400		mg/L	237133	1	01/31/2017 23:16	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:16	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:16	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:16	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:16	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:16	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:16	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:16	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:16	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:16	JS
Zinc	0.0458	0.0200		mg/L	237133	1	02/02/2017 00:05	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	3100	500		ug/L	237011	1000	01/31/2017 15:00	YH
Acenaphthylene	33	5.0		ug/L	237011	100	01/31/2017 14:08	YH
Acenaphthene	8.0	5.0		ug/L	237011	100	01/31/2017 14:08	YH
Fluorene	21	10		ug/L	237011	100	01/31/2017 14:08	YH
Phenanthrene	14	5.0		ug/L	237011	100	01/31/2017 14:08	YH
Anthracene	3.1	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Fluoranthene	1.2	0.10		ug/L	237011	1	01/27/2017 21:06	YH
Pyrene	1.5	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Benz(a)anthracene	0.15	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Chrysene	0.073	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 21:06	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 21:06	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-009

Client Sample ID: MW-601-0117
 Collection Date: 1/25/2017 10:42:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 21:06	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 21:06	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 21:06	YH
Surr: 4-Terphenyl-d14	100	58.5-125		%REC	237011	1	01/27/2017 21:06	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:39	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	0.019	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-010

Client Sample ID: MW-21-0117
Collection Date: 1/25/2017 11:53:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/30/2017 19:13	BN
Benzene	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Trichloroethene	6.8	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Toluene	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/30/2017 19:13	BN
Surr: 4-Bromofluorobenzene	101	66.1-129		%REC	237146	1	01/30/2017 19:13	BN
Surr: Dibromofluoromethane	120	83.6-123		%REC	237146	1	01/30/2017 19:13	BN
Surr: Toluene-d8	98.5	81.8-118		%REC	237146	1	01/30/2017 19:13	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:23	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:23	JS
Barium	0.0788	0.00400		mg/L	237133	1	01/31/2017 23:23	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:23	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:23	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:23	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:23	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:23	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:23	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:23	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:23	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:23	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 23:23	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237011	1	01/27/2017 21:33	YH
Acenaphthylene	BRL	1.0		ug/L	237011	1	01/27/2017 21:33	YH
Acenaphthene	BRL	0.50		ug/L	237011	1	01/27/2017 21:33	YH
Fluorene	BRL	0.10		ug/L	237011	1	01/27/2017 21:33	YH
Phenanthrene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Anthracene	0.078	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 21:33	YH
Pyrene	0.058	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Benz(a)anthracene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Chrysene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237011	1	01/27/2017 21:33	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-010

Client Sample ID: MW-21-0117
 Collection Date: 1/25/2017 11:53:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237011	1	01/27/2017 21:33	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237011	1	01/27/2017 21:33	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237011	1	01/27/2017 21:33	YH
Surr: 4-Terphenyl-d14	99.6	58.5-125		%REC	237011	1	01/27/2017 21:33	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:41	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-011

Client Sample ID: MW-313-0117
Collection Date: 1/25/2017 12:48:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 20:56	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 20:56	BN
Surr: 4-Bromofluorobenzene	100	66.1-129		%REC	237146	1	01/28/2017 20:56	BN
Surr: Dibromofluoromethane	110	83.6-123		%REC	237146	1	01/28/2017 20:56	BN
Surr: Toluene-d8	99.1	81.8-118		%REC	237146	1	01/28/2017 20:56	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:29	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:29	JS
Barium	0.205	0.00400		mg/L	237133	1	01/31/2017 23:29	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:29	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:29	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:29	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:29	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:29	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:29	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:29	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:29	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:29	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 23:29	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	01/31/2017 15:55	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	01/31/2017 15:55	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	01/31/2017 15:55	YH
Fluorene	BRL	0.10		ug/L	237121	1	01/31/2017 15:55	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Anthracene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	01/31/2017 15:55	YH
Pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Chrysene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	01/31/2017 15:55	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-011

Client Sample ID: MW-313-0117
 Collection Date: 1/25/2017 12:48:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 15:55	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	01/31/2017 15:55	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	01/31/2017 15:55	YH
Surr: 4-Terphenyl-d14	108	58.5-125		%REC	237121	1	01/31/2017 15:55	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:43	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701M30-012

Client Sample ID: MW-325-0117
Collection Date: 1/25/2017 1:55:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237146	1	01/28/2017 21:23	BN
Benzene	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Carbon disulfide	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Ethylbenzene	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Methylene chloride	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Trichloroethene	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Toluene	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Xylenes, Total	BRL	5.0		ug/L	237146	1	01/28/2017 21:23	BN
Surr: 4-Bromofluorobenzene	92.6	66.1-129		%REC	237146	1	01/28/2017 21:23	BN
Surr: Dibromofluoromethane	115	83.6-123		%REC	237146	1	01/28/2017 21:23	BN
Surr: Toluene-d8	98.1	81.8-118		%REC	237146	1	01/28/2017 21:23	BN
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 23:35	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 23:35	JS
Barium	0.0948	0.00400		mg/L	237133	1	01/31/2017 23:35	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 23:35	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 23:35	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:35	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 23:35	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 23:35	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 23:35	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 23:35	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 23:35	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 23:35	JS
Zinc	BRL	0.0200		mg/L	237133	1	02/02/2017 00:11	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	01/31/2017 16:23	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	01/31/2017 16:23	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	01/31/2017 16:23	YH
Fluorene	0.15	0.10		ug/L	237121	1	01/31/2017 16:23	YH
Phenanthrene	0.085	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Anthracene	0.062	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	01/31/2017 16:23	YH
Pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Chrysene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	01/31/2017 16:23	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701M30-012

Client Sample ID: MW-325-0117
 Collection Date: 1/25/2017 1:55:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	01/31/2017 16:23	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	01/31/2017 16:23	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	01/31/2017 16:23	YH
Surr: 4-Terphenyl-d14	93	58.5-125		%REC	237121	1	01/31/2017 16:23	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237082	1	01/30/2017 15:45	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-505D-0117				Lab ID: 1701M30-001			
Collection Date: 1/24/2017 9:33:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	502		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	17		0.72	5.0	ug/L	237011	100
Acenaphthene	16		1.7	5.0	ug/L	237011	100
Fluorene	2.6		0.019	0.10	ug/L	237011	1
Phenanthrene	1.8		0.022	0.050	ug/L	237011	1
Anthracene	0.32		0.026	0.050	ug/L	237011	1
Fluoranthene	0.53		0.016	0.10	ug/L	237011	1
Pyrene	0.83		0.015	0.050	ug/L	237011	1
Client Sample ID: MW-304-0117				Lab ID: 1701M30-002			
Collection Date: 1/24/2017 10:35:00 AM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	290		1.4	50	ug/L	237146	10
Xylenes, Total	9.7		0.30	5.0	ug/L	237146	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	354		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	21		0.72	5.0	ug/L	237011	100
Acenaphthene	32		1.7	5.0	ug/L	237011	100
Fluorene	4.0		0.019	0.10	ug/L	237011	1
Phenanthrene	2.3		0.022	0.050	ug/L	237011	1
Anthracene	0.48		0.026	0.050	ug/L	237011	1
Fluoranthene	0.51		0.016	0.10	ug/L	237011	1
Pyrene	0.61		0.015	0.050	ug/L	237011	1
Client Sample ID: MW-602-0117				Lab ID: 1701M30-003			
Collection Date: 1/24/2017 11:35:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	381		0.180	4.00	ug/L	237133	1
Zinc	132		3.92	20.0	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthene	1.7		0.017	0.50	ug/L	237011	1
Fluorene	0.12		0.019	0.10	ug/L	237011	1
Anthracene	0.15		0.026	0.050	ug/L	237011	1
Pyrene	0.080		0.015	0.050	ug/L	237011	1
Client Sample ID: MW-303-0117				Lab ID: 1701M30-004			
Collection Date: 1/24/2017 12:28:00 PM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	79.4		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Fluorene	0.13		0.019	0.10	ug/L	237011	1
Anthracene	0.12		0.026	0.050	ug/L	237011	1
Fluoranthene	0.18		0.016	0.10	ug/L	237011	1
Pyrene	0.38		0.015	0.050	ug/L	237011	1

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-309BR-0117				Lab ID: 1701M30-005			
Collection Date: 1/24/2017 1:20:00 PM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	402		0.180	4.00	ug/L	237133	1
Client Sample ID: MW-206-0117				Lab ID: 1701M30-006			
Collection Date: 1/24/2017 2:34:00 PM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	262		0.180	4.00	ug/L	237133	1
Client Sample ID: MW-203-0117				Lab ID: 1701M30-007			
Collection Date: 1/25/2017 8:40:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	50.4		0.180	4.00	ug/L	237133	1
Vanadium	11.2		0.130	10.0	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Pyrene	0.051		0.015	0.050	ug/L	237011	1
Chrysene	0.055		0.017	0.050	ug/L	237011	1
Benzo(k)fluoranthene	0.092		0.026	0.050	ug/L	237011	1
Benzo(a)pyrene	0.073		0.022	0.050	ug/L	237011	1
Indeno(1,2,3-cd)pyrene	0.17		0.012	0.050	ug/L	237011	1
Dibenz(a,h)anthracene	0.13		0.0097	0.10	ug/L	237011	1
Benzo(g,h,i)perylene	0.16		0.014	0.10	ug/L	237011	1
Client Sample ID: MW-202DR-0117				Lab ID: 1701M30-008			
Collection Date: 1/25/2017 9:42:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	64.0		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	3.9		0.0072	0.50	ug/L	237011	1
Client Sample ID: MW-601-0117				Lab ID: 1701M30-009			
Collection Date: 1/25/2017 10:42:00 AM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	8200		14	500	ug/L	237146	100
Ethylbenzene	570		20	500	ug/L	237146	100
Toluene	7300		20	500	ug/L	237146	100
Xylenes, Total	2000		30	500	ug/L	237146	100
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	93.7		0.180	4.00	ug/L	237133	1
Zinc	45.8		3.92	20.0	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	3100		7.2	500	ug/L	237011	1000
Acenaphthylene	33		2.0	5.0	ug/L	237011	100
Acenaphthene	8.0		1.7	5.0	ug/L	237011	100
Fluorene	21		1.9	10	ug/L	237011	100
Phenanthrene	14		2.2	5.0	ug/L	237011	100
Anthracene	3.1		0.026	0.050	ug/L	237011	1
Fluoranthene	1.2		0.016	0.10	ug/L	237011	1
Pyrene	1.5		0.015	0.050	ug/L	237011	1
Benz(a)anthracene	0.15		0.018	0.050	ug/L	237011	1

Page 30 of 48

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-601-0117 Lab ID: 1701M30-009 Collection Date: 1/25/2017 10:42:00 AM Matrix: Groundwater							
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Chrysene	0.073		0.017	0.050	ug/L	237011	1
Cyanide	SW9014			(SW9010C)			
Cyanide, Total	0.019		0.005	0.010	mg/L	237286	1
Client Sample ID: MW-21-0117 Lab ID: 1701M30-010 Collection Date: 1/25/2017 11:53:00 AM Matrix: Groundwater							
Volatile Organic Compounds by GC/MS	SW8260B			(SW5030B)			
Trichloroethene	6.8		0.35	5.0	ug/L	237146	1
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	78.8		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Anthracene	0.078		0.026	0.050	ug/L	237011	1
Pyrene	0.058		0.015	0.050	ug/L	237011	1
Client Sample ID: MW-313-0117 Lab ID: 1701M30-011 Collection Date: 1/25/2017 12:48:00 PM Matrix: Groundwater							
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	205		0.180	4.00	ug/L	237133	1
Client Sample ID: MW-325-0117 Lab ID: 1701M30-012 Collection Date: 1/25/2017 1:55:00 PM Matrix: Groundwater							
Total Metals by ICP/MS	SW6020B			(SW3005A)			
Barium	94.8		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons	SW8270D			(SW3510C)			
Fluorene	0.15		0.019	0.10	ug/L	237121	1
Phenanthrene	0.085		0.022	0.050	ug/L	237121	1
Anthracene	0.062		0.026	0.050	ug/L	237121	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Amec/Kennesaw Work Order Number 1701M30

Checklist completed by [Signature] Date 1/26/17

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 2.9 Cooler #2 0.9 Cooler #3 1.3 Cooler #4 2.5 Cooler #5 1.1 Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M30

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M30-001A	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-001B	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-001B	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M30-001C	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-001C	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-001D	MW-505D-0117	1/24/2017 9:33:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-002A	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-002A	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/30/2017
1701M30-002B	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-002B	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M30-002C	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-002C	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-002D	MW-304-0117	1/24/2017 10:35:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-003A	MW-602-0117	1/24/2017 11:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-003B	MW-602-0117	1/24/2017 11:35:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-003C	MW-602-0117	1/24/2017 11:35:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-003C	MW-602-0117	1/24/2017 11:35:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-003D	MW-602-0117	1/24/2017 11:35:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-004A	MW-303-0117	1/24/2017 12:28:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/30/2017
1701M30-004B	MW-303-0117	1/24/2017 12:28:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-004C	MW-303-0117	1/24/2017 12:28:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-004C	MW-303-0117	1/24/2017 12:28:00PM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-004D	MW-303-0117	1/24/2017 12:28:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-005A	MW-309BR-0117	1/24/2017 1:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-005B	MW-309BR-0117	1/24/2017 1:20:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-005C	MW-309BR-0117	1/24/2017 1:20:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-005C	MW-309BR-0117	1/24/2017 1:20:00PM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-005D	MW-309BR-0117	1/24/2017 1:20:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-006A	MW-206-0117	1/24/2017 2:34:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701M30

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M30-006B	MW-206-0117	1/24/2017 2:34:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-006C	MW-206-0117	1/24/2017 2:34:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-006C	MW-206-0117	1/24/2017 2:34:00PM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-006D	MW-206-0117	1/24/2017 2:34:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-007A	MW-203-0117	1/25/2017 8:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-007B	MW-203-0117	1/25/2017 8:40:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-007C	MW-203-0117	1/25/2017 8:40:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-007C	MW-203-0117	1/25/2017 8:40:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-007D	MW-203-0117	1/25/2017 8:40:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-008A	MW-202DR-0117	1/25/2017 9:42:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-008B	MW-202DR-0117	1/25/2017 9:42:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-008C	MW-202DR-0117	1/25/2017 9:42:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-008C	MW-202DR-0117	1/25/2017 9:42:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-008D	MW-202DR-0117	1/25/2017 9:42:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-009A	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/30/2017
1701M30-009B	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-009B	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/31/2017
1701M30-009C	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-009C	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/02/2017
1701M30-009C	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-009D	MW-601-0117	1/25/2017 10:42:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-010A	MW-21-0117	1/25/2017 11:53:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/30/2017
1701M30-010B	MW-21-0117	1/25/2017 11:53:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/27/2017 10:00:00AM	01/27/2017
1701M30-010C	MW-21-0117	1/25/2017 11:53:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-010C	MW-21-0117	1/25/2017 11:53:00AM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-010D	MW-21-0117	1/25/2017 11:53:00AM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-011A	MW-313-0117	1/25/2017 12:48:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-011B	MW-313-0117	1/25/2017 12:48:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	01/31/2017
1701M30-011C	MW-313-0117	1/25/2017 12:48:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab Order: 1701M30

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701M30-011C	MW-313-0117	1/25/2017 12:48:00PM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-011D	MW-313-0117	1/25/2017 12:48:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701M30-012A	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/28/2017 1:30:00PM	01/28/2017
1701M30-012B	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	01/31/2017
1701M30-012C	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	01/31/2017
1701M30-012C	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00PM	02/02/2017
1701M30-012C	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	TOTAL MERCURY		1/30/2017 10:09:00AM	01/30/2017
1701M30-012D	MW-325-0117	1/25/2017 1:55:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237011

Sample ID: MB-237011	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7315028			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.306	0	2.000		115	58.5	125				

Sample ID: LCS-237011	Client ID:				Units: ug/L	Prep Date: 01/27/2017	Run No: 335233				
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7314316				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.986	0.50	2.000		99.3	69.1	117				
Acenaphthylene	1.807	1.0	2.000		90.3	59.7	118				
Anthracene	2.121	0.050	2.000		106	64.7	121				
Benz(a)anthracene	2.344	0.050	2.000		117	61.7	139				
Benzo(a)pyrene	2.438	0.050	2.000		122	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237011

Sample ID: LCS-237011	Client ID:					Units: ug/L	Prep Date: 01/27/2017	Run No: 335233			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237011	Analysis Date: 01/27/2017	Seq No: 7314316			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	2.051	0.10	2.000	0.02109	102	60.8	129				
Benzo(g,h,i)perylene	2.133	0.10	2.000	0.02217	106	60.1	129				
Benzo(k)fluoranthene	2.217	0.050	2.000		111	69.6	130				
Chrysene	2.338	0.050	2.000		117	76.5	127				
Dibenz(a,h)anthracene	2.190	0.10	2.000	0.02021	108	55.2	126				
Fluoranthene	2.176	0.10	2.000		109	66.5	133				
Fluorene	1.990	0.10	2.000		99.5	66.1	122				
Indeno(1,2,3-cd)pyrene	2.148	0.050	2.000	0.01843	106	58.8	132				
Naphthalene	1.830	0.50	2.000	0.03338	89.8	60.6	120				
Phenanthrene	1.993	0.050	2.000		99.7	65.9	118				
Pyrene	2.318	0.050	2.000	0.02880	114	70.2	129				
Surr: 4-Terphenyl-d14	2.261	0	2.000		113	58.5	125				

Sample ID: 1701M30-007BMS	Client ID: MW-203-0117				Units: ug/L	Prep Date: 01/27/2017	Run No: 335233				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237011			Analysis Date: 01/27/2017	Seq No: 7315857				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.843	0.50	2.000		92.2	49.7	118				
Acenaphthylene	1.741	1.0	2.000		87.1	56.7	120				
Anthracene	2.000	0.050	2.000	0.03907	98.1	54.4	117				
Benz(a)anthracene	2.339	0.050	2.000	0.04991	114	52.4	135				
Benzo(a)pyrene	2.192	0.050	2.000	0.07322	106	51.5	117				
Benzo(b)fluoranthene	1.803	0.10	2.000	0.08269	86.0	45.6	124				
Benzo(g,h,i)perylene	1.864	0.10	2.000	0.1626	85.1	45.9	120				
Benzo(k)fluoranthene	2.025	0.050	2.000	0.09235	96.6	51.8	122				
Chrysene	2.135	0.050	2.000	0.05497	104	59.9	120				
Dibenz(a,h)anthracene	1.723	0.10	2.000	0.1308	79.6	41.6	120				
Fluoranthene	2.097	0.10	2.000	0.03844	103	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237011**

Sample ID: 1701M30-007BMS	Client ID: MW-203-0117				Units: ug/L	Prep Date: 01/27/2017	Run No: 335233				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237011			Analysis Date: 01/27/2017	Seq No: 7315857				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.902	0.10	2.000		95.1	57.9	117				
Indeno(1,2,3-cd)pyrene	1.876	0.050	2.000	0.1660	85.5	45.5	120				
Naphthalene	1.716	0.50	2.000		85.8	53.9	120				
Phenanthrene	1.837	0.050	2.000	0.03145	90.3	58.1	120				
Pyrene	2.171	0.050	2.000	0.05065	106	61.6	120				
Surr: 4-Terphenyl-d14	2.047	0	2.000		102	58.5	125				

Sample ID: 1701M30-007BMSD	Client ID: MW-203-0117				Units: ug/L	Prep Date: 01/27/2017	Run No: 335233				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237011			Analysis Date: 01/27/2017	Seq No: 7315858				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.836	0.50	2.000		91.8	49.7	118	1.843	0.400	17.4	
Acenaphthylene	1.709	1.0	2.000		85.4	56.7	120	1.741	1.91	19.5	
Anthracene	2.081	0.050	2.000	0.03907	102	54.4	117	2.000	3.94	24.5	
Benz(a)anthracene	2.287	0.050	2.000	0.04991	112	52.4	135	2.339	2.25	30.2	
Benzo(a)pyrene	2.166	0.050	2.000	0.07322	105	51.5	117	2.192	1.20	25.6	
Benzo(b)fluoranthene	1.768	0.10	2.000	0.08269	84.3	45.6	124	1.803	1.99	20.9	
Benzo(g,h,i)perylene	1.923	0.10	2.000	0.1626	88.0	45.9	120	1.864	3.13	28.6	
Benzo(k)fluoranthene	1.917	0.050	2.000	0.09235	91.2	51.8	122	2.025	5.47	28.6	
Chrysene	2.112	0.050	2.000	0.05497	103	59.9	120	2.135	1.11	26.4	
Dibenz(a,h)anthracene	1.668	0.10	2.000	0.1308	76.9	41.6	120	1.723	3.21	17.8	
Fluoranthene	2.176	0.10	2.000	0.03844	107	59.7	122	2.097	3.70	22.1	
Fluorene	1.869	0.10	2.000		93.5	57.9	117	1.902	1.75	20.8	
Indeno(1,2,3-cd)pyrene	1.873	0.050	2.000	0.1660	85.3	45.5	120	1.876	0.177	19.3	
Naphthalene	1.697	0.50	2.000		84.9	53.9	120	1.716	1.11	20.6	
Phenanthrene	1.902	0.050	2.000	0.03145	93.5	58.1	120	1.837	3.48	19.4	
Pyrene	2.138	0.050	2.000	0.05065	104	61.6	120	2.171	1.50	21.2	
Surr: 4-Terphenyl-d14	2.362	0	2.000		118	58.5	125	2.047	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237011

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237082

Sample ID: MB-237082		Client ID:				Units: mg/L		Prep Date: 01/30/2017		Run No: 335358	
SampleType: MBLK		TestCode: Mercury, Total SW7470A				BatchID: 237082		Analysis Date: 01/30/2017		Seq No: 7316944	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: LCS-237082		Client ID:				Units: mg/L		Prep Date: 01/30/2017		Run No: 335358	
SampleType: LCS		TestCode: Mercury, Total SW7470A				BatchID: 237082		Analysis Date: 01/30/2017		Seq No: 7316945	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005103	0.00020	0.0050		102	80	120				

Sample ID: 1701M30-001CMS		Client ID: MW-505D-0117				Units: mg/L		Prep Date: 01/30/2017		Run No: 335358	
SampleType: MS		TestCode: Mercury, Total SW7470A				BatchID: 237082		Analysis Date: 01/30/2017		Seq No: 7316949	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005076	0.00020	0.0050		102	70	130				

Sample ID: 1701M30-001CMSD		Client ID: MW-505D-0117				Units: mg/L		Prep Date: 01/30/2017		Run No: 335358	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237082		Analysis Date: 01/30/2017		Seq No: 7316950	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005172	0.00020	0.0050		103	70	130	0.005076	1.88	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: MB-237121	Client ID:				Units: ug/L	Prep Date: 01/30/2017	Run No: 335417				
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318485				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.260	0	2.000		113	58.5	125				

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	2.054	0.50	2.000		103	69.1	117				
Acenaphthylene	1.918	1.0	2.000		95.9	59.7	118				
Anthracene	2.195	0.050	2.000		110	64.7	121				
Benz(a)anthracene	2.412	0.050	2.000		121	61.7	139				
Benzo(a)pyrene	2.381	0.050	2.000		119	65.1	124				
Benzo(b)fluoranthene	1.914	0.10	2.000		95.7	60.8	129				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237121				Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(g,h,i)perylene	2.016	0.10	2.000		101	60.1	129				
Benzo(k)fluoranthene	2.170	0.050	2.000		108	69.6	130				
Chrysene	2.319	0.050	2.000		116	76.5	127				
Dibenz(a,h)anthracene	1.805	0.10	2.000		90.2	55.2	126				
Fluoranthene	2.181	0.10	2.000		109	66.5	133				
Fluorene	2.082	0.10	2.000		104	66.1	122				
Indeno(1,2,3-cd)pyrene	1.974	0.050	2.000		98.7	58.8	132				
Naphthalene	1.956	0.50	2.000	0.04156	95.7	60.6	120				
Phenanthrene	2.065	0.050	2.000		103	65.9	118				
Pyrene	2.257	0.050	2.000		113	70.2	129				
Surr: 4-Terphenyl-d14	2.078	0	2.000		104	58.5	125				

Sample ID: 1701O63-005BMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323058			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.811	0.50	2.000		90.6	49.7	118				
Acenaphthylene	1.683	1.0	2.000		84.1	56.7	120				
Anthracene	1.980	0.050	2.000		99.0	54.4	117				
Benz(a)anthracene	2.177	0.050	2.000		109	52.4	135				
Benzo(a)pyrene	1.914	0.050	2.000		95.7	51.5	117				
Benzo(b)fluoranthene	1.625	0.10	2.000	0.02680	79.9	45.6	124				
Benzo(g,h,i)perylene	1.280	0.10	2.000	0.02508	62.7	45.9	120				
Benzo(k)fluoranthene	1.708	0.050	2.000		85.4	51.8	122				
Chrysene	2.066	0.050	2.000	0.02246	102	59.9	120				
Dibenz(a,h)anthracene	1.058	0.10	2.000		52.9	41.6	120				
Fluoranthene	2.080	0.10	2.000	0.04902	102	59.7	122				
Fluorene	1.837	0.10	2.000		91.8	57.9	117				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: 1701O63-005BMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323058			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Indeno(1,2,3-cd)pyrene	1.380	0.050	2.000		69.0	45.5	120				
Naphthalene	1.767	0.50	2.000		88.3	53.9	120				
Phenanthrene	1.887	0.050	2.000	0.02576	93.0	58.1	120				
Pyrene	2.022	0.050	2.000	0.05133	98.5	61.6	120				
Surr: 4-Terphenyl-d14	1.800	0	2.000		90.0	58.5	125				

Sample ID: 1701O63-005BMSD	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323059			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.820	0.50	2.000		91.0	49.7	118	1.811	0.496	17.4	
Acenaphthylene	1.694	1.0	2.000		84.7	56.7	120	1.683	0.638	19.5	
Anthracene	2.066	0.050	2.000		103	54.4	117	1.980	4.25	24.5	
Benz(a)anthracene	2.288	0.050	2.000		114	52.4	135	2.177	4.97	30.2	
Benzo(a)pyrene	1.883	0.050	2.000		94.2	51.5	117	1.914	1.59	25.6	
Benzo(b)fluoranthene	1.670	0.10	2.000	0.02680	82.2	45.6	124	1.625	2.70	20.9	
Benzo(g,h,i)perylene	1.166	0.10	2.000	0.02508	57.1	45.9	120	1.280	9.28	28.6	
Benzo(k)fluoranthene	1.676	0.050	2.000		83.8	51.8	122	1.708	1.91	28.6	
Chrysene	2.092	0.050	2.000	0.02246	103	59.9	120	2.066	1.26	26.4	
Dibenz(a,h)anthracene	0.9449	0.10	2.000		47.2	41.6	120	1.058	11.3	17.8	
Fluoranthene	2.204	0.10	2.000	0.04902	108	59.7	122	2.080	5.78	22.1	
Fluorene	1.842	0.10	2.000		92.1	57.9	117	1.837	0.292	20.8	
Indeno(1,2,3-cd)pyrene	1.188	0.050	2.000		59.4	45.5	120	1.380	15.0	19.3	
Naphthalene	1.743	0.50	2.000		87.2	53.9	120	1.767	1.35	20.6	
Phenanthrene	1.944	0.050	2.000	0.02576	95.9	58.1	120	1.887	2.99	19.4	
Pyrene	2.107	0.050	2.000	0.05133	103	61.6	120	2.022	4.10	21.2	
Surr: 4-Terphenyl-d14	1.837	0	2.000		91.9	58.5	125	1.800	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237133**

Sample ID: MB-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321638			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321639			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09300	0.00500	0.1000		93.0	80	120				
Arsenic	0.09284	0.00500	0.1000		92.8	80	120				
Barium	0.09186	0.0100	0.1000		91.9	80	120				
Beryllium	0.09396	0.00100	0.1000		94.0	80	120				
Cadmium	0.09290	0.000700	0.1000		92.9	80	120				
Chromium	0.09266	0.00500	0.1000	0.0007820	91.9	80	120				
Copper	0.09265	0.00200	0.1000		92.6	80	120				
Lead	0.09033	0.00100	0.1000		90.3	80	120				
Nickel	0.09248	0.00500	0.1000	0.0002820	92.2	80	120				
Selenium	0.09380	0.00500	0.1000		93.8	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237133**

Sample ID: LCS-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B				BatchID: 237133	Analysis Date: 01/31/2017	Seq No: 7321639			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.08539	0.00100	0.1000		85.4	80	120				
Vanadium	0.08976	0.00500	0.1000		89.8	80	120				
Zinc	0.09343	0.0100	0.1000		93.4	80	120				

Sample ID: 1701O63-005CMS	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321641			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09411	0.00500	0.1000	0.0002910	93.8	75	125				
Arsenic	0.09034	0.00500	0.1000		90.3	75	125				
Barium	0.3309	0.0100	0.1000	0.2380	92.9	75	125				
Beryllium	0.09575	0.00100	0.1000		95.8	75	125				
Cadmium	0.09372	0.000700	0.1000		93.7	75	125				
Chromium	0.08828	0.00500	0.1000	0.001352	86.9	75	125				
Copper	0.08901	0.00200	0.1000	0.0009280	88.1	75	125				
Lead	0.09144	0.00100	0.1000	0.0005480	90.9	75	125				
Nickel	0.08784	0.00500	0.1000	0.001053	86.8	75	125				
Selenium	0.09289	0.00500	0.1000		92.9	75	125				
Thallium	0.08636	0.00100	0.1000	0.0002800	86.1	75	125				
Vanadium	0.08224	0.00500	0.1000		82.2	75	125				
Zinc	0.09824	0.0100	0.1000	0.01793	80.3	75	125				

Sample ID: 1701O63-005CMSD	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321642			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09251	0.00500	0.1000	0.0002910	92.2	75	125	0.09411	1.71	20	
Arsenic	0.08991	0.00500	0.1000		89.9	75	125	0.09034	0.477	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237133

Sample ID: 1701O63-005CMSD	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321642			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.3296	0.0100	0.1000	0.2380	91.6	75	125	0.3309	0.394	20	
Beryllium	0.09294	0.00100	0.1000		92.9	75	125	0.09575	2.98	20	
Cadmium	0.09183	0.000700	0.1000		91.8	75	125	0.09372	2.04	20	
Chromium	0.08720	0.00500	0.1000	0.001352	85.8	75	125	0.08828	1.23	20	
Copper	0.08782	0.00200	0.1000	0.0009280	86.9	75	125	0.08901	1.35	20	
Lead	0.08959	0.00100	0.1000	0.0005480	89.0	75	125	0.09144	2.04	20	
Nickel	0.08666	0.00500	0.1000	0.001053	85.6	75	125	0.08784	1.35	20	
Selenium	0.09117	0.00500	0.1000		91.2	75	125	0.09289	1.87	20	
Thallium	0.08503	0.00100	0.1000	0.0002800	84.8	75	125	0.08636	1.55	20	
Vanadium	0.08146	0.00500	0.1000		81.5	75	125	0.08224	0.953	20	
Zinc	0.1020	0.0100	0.1000	0.01793	84.1	75	125	0.09824	3.76	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237146

Sample ID: MB-237146	Client ID:	Units: ug/L				Prep Date: 01/28/2017	Run No: 335345				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237146				Analysis Date: 01/28/2017	Seq No: 7316757				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.27	0	50.00		101	66.1	129				
Surr: Dibromofluoromethane	59.36	0	50.00		119	83.6	123				
Surr: Toluene-d8	48.12	0	50.00		96.2	81.8	118				

Sample ID: LCS-237146	Client ID:					Units: ug/L	Prep Date: 01/28/2017	Run No: 335363			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237146	Analysis Date: 01/30/2017	Seq No: 7318446			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	53.01	5.0	50.00		106	74	125				
Toluene	55.68	5.0	50.00		111	75.9	126				
Trichloroethene	56.50	5.0	50.00		113	70.6	129				
Surr: 4-Bromofluorobenzene	51.47	0	50.00		103	66.1	129				
Surr: Dibromofluoromethane	58.53	0	50.00		117	83.6	123				
Surr: Toluene-d8	49.50	0	50.00		99.0	81.8	118				

Sample ID: 1701M28-008AMS	Client ID:					Units: ug/L	Prep Date: 01/28/2017	Run No: 335345			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237146	Analysis Date: 01/28/2017	Seq No: 7316761			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	15730	500	5000	9952	116	71.6	132				
---------	-------	-----	------	------	-----	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT**BatchID: 237146**

Sample ID: 1701M28-008AMS	Client ID:					Units: ug/L	Prep Date: 01/28/2017	Run No: 335345			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237146	Analysis Date: 01/28/2017	Seq No: 7316761			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	8007	500	5000	1735	125	72.5	135				
Trichloroethene	6009	500	5000		120	70.2	132				
Surr: 4-Bromofluorobenzene	5295	0	5000		106	66.1	129				
Surr: Dibromofluoromethane	5602	0	5000		112	83.6	123				
Surr: Toluene-d8	4655	0	5000		93.1	81.8	118				

Sample ID: 1701M28-008AMSD	Client ID:					Units: ug/L	Prep Date: 01/28/2017	Run No: 335345			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237146	Analysis Date: 01/28/2017	Seq No: 7316762			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	15700	500	5000	9952	115	71.6	132	15730	0.178	20.7	
Toluene	7690	500	5000	1735	119	72.5	135	8007	4.04	23.2	
Trichloroethene	6021	500	5000		120	70.2	132	6009	0.200	27.7	
Surr: 4-Bromofluorobenzene	5479	0	5000		110	66.1	129	5295	0	0	
Surr: Dibromofluoromethane	5809	0	5000		116	83.6	123	5602	0	0	
Surr: Toluene-d8	4791	0	5000		95.8	81.8	118	4655	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701M30

ANALYTICAL QC SUMMARY REPORT

BatchID: 237286

Sample ID: MB-237286	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335504			
SampleType: MBLK	TestCode: Cyanide	SW9014				BatchID: 237286	Analysis Date: 01/31/2017	Seq No: 7320805			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237286		Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335504			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320806			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-003DMS	Client ID:	Units: mg/L			Prep Date: 01/31/2017	Run No: 335504					
SampleType: MS	TestCode: Cyanide SW9014	BatchID: 237286			Analysis Date: 01/31/2017	Seq No: 7320832					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.1930 0.010 0.2500 77.2 70 130

Sample ID: 1701O62-003DMSD		Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335504			
SampleType: MSD		TestCode: Cyanide SW9014		BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320835			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.1980 0.010 0.2500 79.2 70 130 0.1930 2.56 20



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 07, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701O61

Analytical Environmental Services, Inc. received 11 samples on 1/28/2017 11:23:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1741041

Date: 1/25/17 Page 2 of 2

COMPANY: Amec Foster Wheeler		ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers					
PHONE: 770-421-3400		FAX: 770-421-3486		<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> VOC list PAHs 82700 SIM Total Metals + Hg 6620/7470A CN 9014 </div> <div style="margin-top: 10px;">PRESERVATION (See codes)</div> </div>										REMARKS							
SAMPLED BY: J Moore, J Howard, E Guillen, N McMillan		SIGNATURE: <i>Daniel Howard</i>																			
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	A	I	N	NA											
1	TR-03-0117	1/26/17	0900	X		W	2										2				
2	MW-3105AP-0117		1032	X		GW	2	2	1	1							6				
3	MW-3108R-0117		1237	X		GW	2	2	1	1							6				
4	MW-4015-0117		1432	X		GW	2	2	1	1							6				
5	DUP-4-0117		1200	X		GW	2	2	1	1							6				
6	MW-318-0117		1435	X		GW	2	2	1	1							6				
7	MW-401D-0117		1622	X		GW	2	2	1	1							6				
8	MW-607-0117		1150	X		GW	2	2	1	1							6				
9	MW-404DR-0117		1525	X		GW	2	2	1	1							6				
10	MW-5015-0117		1625	X		GW	2	2	1	1							6				
11	DUP-5-0117		1200	X		GW	2	2	1	1							6				
12																					
13																					
14																					
RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT				
1: <i>[Signature]</i>		1-28-17/1125	1: <i>Jessie Phelan</i>		1/28/17 11:23		PROJECT NAME: AGL Augusta										Total # of Containers				
2: <i>[Signature]</i>			2: <i>[Signature]</i>				PROJECT #: 61221500235.01										Turnaround Time Request <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other				
3: <i>[Signature]</i>			3: <i>[Signature]</i>				SITE ADDRESS: Walton Way 8th St Augusta, GA														
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD:		OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		SEND REPORT TO: John Quinn / David Price										STATE PROGRAM (if any):					
						INVOICE TO: (IF DIFFERENT FROM ABOVE)										Fax?					
						QUOTE #: PO#:										DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>					

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None White Copy - Original; Yellow Copy - Client

17/10/16

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony -0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-001

Client Sample ID: TB-03-0117
 Collection Date: 1/26/2017 9:00:00 AM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/30/2017 18:26	NP
Benzene	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Toluene	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/30/2017 18:26	NP
Surr: 4-Bromofluorobenzene	92.8	66.1-129		%REC	237172	1	01/30/2017 18:26	NP
Surr: Dibromofluoromethane	96.2	83.6-123		%REC	237172	1	01/30/2017 18:26	NP
Surr: Toluene-d8	99.3	81.8-118		%REC	237172	1	01/30/2017 18:26	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-002

Client Sample ID: MW-310SAP-0117
Collection Date: 1/26/2017 10:32:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/30/2017 23:10	NP
Benzene	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Toluene	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/30/2017 23:10	NP
Surr: 4-Bromofluorobenzene	89.7	66.1-129		%REC	237172	1	01/30/2017 23:10	NP
Surr: Dibromofluoromethane	94.6	83.6-123		%REC	237172	1	01/30/2017 23:10	NP
Surr: Toluene-d8	99.5	81.8-118		%REC	237172	1	01/30/2017 23:10	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 14:23	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 14:23	JR
Barium	0.0639	0.00400		mg/L	237273	1	02/03/2017 14:23	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 14:23	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 14:23	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 14:23	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 14:23	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 14:23	JR
Nickel	0.437	0.0200		mg/L	237273	1	02/03/2017 14:23	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 14:23	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 14:23	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 14:23	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 14:23	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 13:12	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 13:12	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 13:12	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 13:12	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 13:12	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 13:12	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-002

Client Sample ID: MW-310SAP-0117
 Collection Date: 1/26/2017 10:32:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:12	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 13:12	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 13:12	YH
Surr: 4-Terphenyl-d14	97.9	58.5-125		%REC	237121	1	02/01/2017 13:12	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:29	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-003

Client Sample ID: MW-310BR-0117
Collection Date: 1/26/2017 12:37:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/30/2017 23:36	NP
Benzene	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Toluene	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/30/2017 23:36	NP
Surr: 4-Bromofluorobenzene	90.1	66.1-129		%REC	237172	1	01/30/2017 23:36	NP
Surr: Dibromofluoromethane	94.9	83.6-123		%REC	237172	1	01/30/2017 23:36	NP
Surr: Toluene-d8	99.8	81.8-118		%REC	237172	1	01/30/2017 23:36	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 14:54	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 14:54	JR
Barium	0.299	0.00400		mg/L	237273	1	02/03/2017 14:54	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 14:54	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 14:54	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 14:54	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 14:54	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 14:54	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 14:54	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 14:54	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 14:54	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 14:54	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 14:54	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 13:37	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 13:37	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 13:37	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 13:37	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Anthracene	0.12	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 13:37	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 13:37	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-003

Client Sample ID: MW-310BR-0117
 Collection Date: 1/26/2017 12:37:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 13:37	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 13:37	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 13:37	YH
Surr: 4-Terphenyl-d14	90.1	58.5-125		%REC	237121	1	02/01/2017 13:37	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:31	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-004

Client Sample ID: MW-401S-0117
Collection Date: 1/26/2017 2:32:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 00:02	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 00:02	NP
Surr: 4-Bromofluorobenzene	90	66.1-129		%REC	237172	1	01/31/2017 00:02	NP
Surr: Dibromofluoromethane	95.5	83.6-123		%REC	237172	1	01/31/2017 00:02	NP
Surr: Toluene-d8	98.6	81.8-118		%REC	237172	1	01/31/2017 00:02	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:13	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:13	JR
Barium	0.101	0.00400		mg/L	237273	1	02/03/2017 15:13	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:13	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:13	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:13	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:13	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:13	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:13	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:13	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:13	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:13	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:13	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 14:03	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 14:03	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 14:03	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 14:03	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 14:03	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 14:03	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-004

Client Sample ID: MW-401S-0117
Collection Date: 1/26/2017 2:32:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:03	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 14:03	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 14:03	YH
Surr: 4-Terphenyl-d14	104	58.5-125		%REC	237121	1	02/01/2017 14:03	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:33	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-005

Client Sample ID: DUP-4-0117
Collection Date: 1/26/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 02:11	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 02:11	NP
Surr: 4-Bromofluorobenzene	89	66.1-129		%REC	237172	1	01/31/2017 02:11	NP
Surr: Dibromofluoromethane	94.4	83.6-123		%REC	237172	1	01/31/2017 02:11	NP
Surr: Toluene-d8	101	81.8-118		%REC	237172	1	01/31/2017 02:11	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:19	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:19	JR
Barium	0.0998	0.00400		mg/L	237273	1	02/03/2017 15:19	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:19	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:19	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:19	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:19	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:19	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:19	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:19	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:19	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:19	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:19	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 14:29	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 14:29	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 14:29	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 14:29	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 14:29	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 14:29	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-005

Client Sample ID: DUP-4-0117
 Collection Date: 1/26/2017 12:00:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:29	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 14:29	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 14:29	YH
Surr: 4-Terphenyl-d14	97.7	58.5-125		%REC	237121	1	02/01/2017 14:29	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:35	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-006

Client Sample ID: MW-318-0117
Collection Date: 1/26/2017 2:35:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/30/2017 19:43	NP
Benzene	470	50		ug/L	237172	10	01/30/2017 20:09	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Toluene	BRL	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Xylenes, Total	14	5.0		ug/L	237172	1	01/30/2017 19:43	NP
Surr: 4-Bromofluorobenzene	91.9	66.1-129		%REC	237172	10	01/30/2017 20:09	NP
Surr: 4-Bromofluorobenzene	92.8	66.1-129		%REC	237172	1	01/30/2017 19:43	NP
Surr: Dibromofluoromethane	95.5	83.6-123		%REC	237172	10	01/30/2017 20:09	NP
Surr: Dibromofluoromethane	91.3	83.6-123		%REC	237172	1	01/30/2017 19:43	NP
Surr: Toluene-d8	98.2	81.8-118		%REC	237172	1	01/30/2017 19:43	NP
Surr: Toluene-d8	99.4	81.8-118		%REC	237172	10	01/30/2017 20:09	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:26	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:26	JR
Barium	0.516	0.00400		mg/L	237273	1	02/03/2017 15:26	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:26	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:26	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:26	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:26	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:26	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:26	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:26	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:26	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:26	JR
Zinc	0.0300	0.0200		mg/L	237273	1	02/03/2017 15:26	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	320	50		ug/L	237121	100	02/02/2017 12:13	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 14:57	YH
Acenaphthene	22	5.0		ug/L	237121	100	02/02/2017 12:13	YH
Fluorene	4.6	0.10		ug/L	237121	1	02/01/2017 14:57	YH
Phenanthrene	3.2	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Anthracene	0.68	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Fluoranthene	0.26	0.10		ug/L	237121	1	02/01/2017 14:57	YH
Pyrene	0.33	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 14:57	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-006

Client Sample ID: MW-318-0117
 Collection Date: 1/26/2017 2:35:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 14:57	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 14:57	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 14:57	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 14:57	YH
Surr: 4-Terphenyl-d14	129	58.5-125	S	%REC	237121	1	02/01/2017 14:57	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:37	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-007

Client Sample ID: MW-401D-0117
Collection Date: 1/26/2017 4:22:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 00:27	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Trichloroethene	10	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 00:27	NP
Surr: 4-Bromofluorobenzene	89	66.1-129		%REC	237172	1	01/31/2017 00:27	NP
Surr: Dibromofluoromethane	92.8	83.6-123		%REC	237172	1	01/31/2017 00:27	NP
Surr: Toluene-d8	99.7	81.8-118		%REC	237172	1	01/31/2017 00:27	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:32	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:32	JR
Barium	0.0633	0.00400		mg/L	237273	1	02/03/2017 15:32	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:32	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:32	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:32	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:32	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:32	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:32	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:32	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:32	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:32	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:32	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 15:25	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 15:25	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 15:25	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 15:25	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 15:25	YH
Pyrene	0.051	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 15:25	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-007

Client Sample ID: MW-401D-0117
 Collection Date: 1/26/2017 4:22:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 15:25	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 15:25	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 15:25	YH
Surr: 4-Terphenyl-d14	207	58.5-125	S	%REC	237121	1	02/01/2017 15:25	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:39	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-008

Client Sample ID: MW-607-0117
Collection Date: 1/26/2017 11:50:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 00:53	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 00:53	NP
Surr: 4-Bromofluorobenzene	89.5	66.1-129		%REC	237172	1	01/31/2017 00:53	NP
Surr: Dibromofluoromethane	96.4	83.6-123		%REC	237172	1	01/31/2017 00:53	NP
Surr: Toluene-d8	99.8	81.8-118		%REC	237172	1	01/31/2017 00:53	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:38	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:38	JR
Barium	0.472	0.00400		mg/L	237273	1	02/03/2017 15:38	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:38	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:38	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:38	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:38	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:38	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:38	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:38	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:38	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:38	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:38	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 15:51	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 15:51	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 15:51	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 15:51	YH
Phenanthrene	0.49	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Anthracene	0.10	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Fluoranthene	0.75	0.10		ug/L	237121	1	02/01/2017 15:51	YH
Pyrene	1.7	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Benz(a)anthracene	0.14	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Chrysene	0.11	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Benzo(b)fluoranthene	0.10	0.10		ug/L	237121	1	02/01/2017 15:51	YH
Benzo(k)fluoranthene	0.056	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Benzo(a)pyrene	0.096	0.050		ug/L	237121	1	02/01/2017 15:51	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-008

Client Sample ID: MW-607-0117
 Collection Date: 1/26/2017 11:50:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 15:51	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 15:51	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 15:51	YH
Surr: 4-Terphenyl-d14	120	58.5-125		%REC	237121	1	02/01/2017 15:51	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:41	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-009

Client Sample ID: MW-404DR-0117
Collection Date: 1/26/2017 3:25:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 01:19	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 01:19	NP
Surr: 4-Bromofluorobenzene	90.3	66.1-129		%REC	237172	1	01/31/2017 01:19	NP
Surr: Dibromofluoromethane	96.5	83.6-123		%REC	237172	1	01/31/2017 01:19	NP
Surr: Toluene-d8	100	81.8-118		%REC	237172	1	01/31/2017 01:19	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:45	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:45	JR
Barium	0.139	0.00400		mg/L	237273	1	02/03/2017 15:45	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:45	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:45	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:45	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:45	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:45	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:45	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:45	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:45	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:45	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:45	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 16:17	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 16:17	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 16:17	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 16:17	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 16:17	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 16:17	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-009

Client Sample ID: MW-404DR-0117
 Collection Date: 1/26/2017 3:25:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:17	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 16:17	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 16:17	YH
Surr: 4-Terphenyl-d14	202	58.5-125	S	%REC	237121	1	02/01/2017 16:17	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:43	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-010

Client Sample ID: MW-501S-0117
Collection Date: 1/26/2017 4:25:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 01:45	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 01:45	NP
Surr: 4-Bromofluorobenzene	89.6	66.1-129		%REC	237172	1	01/31/2017 01:45	NP
Surr: Dibromofluoromethane	92.8	83.6-123		%REC	237172	1	01/31/2017 01:45	NP
Surr: Toluene-d8	99.5	81.8-118		%REC	237172	1	01/31/2017 01:45	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:51	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:51	JR
Barium	0.0453	0.00400		mg/L	237273	1	02/03/2017 15:51	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:51	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:51	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:51	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:51	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:51	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:51	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:51	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:51	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:51	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:51	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 16:44	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 16:44	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 16:44	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 16:44	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 16:44	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 16:44	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O61-010

Client Sample ID: MW-501S-0117
 Collection Date: 1/26/2017 4:25:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 16:44	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 16:44	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 16:44	YH
Surr: 4-Terphenyl-d14	76.2	58.5-125		%REC	237121	1	02/01/2017 16:44	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:45	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O61-011

Client Sample ID: DUP-5-0117
Collection Date: 1/26/2017 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237172	1	01/31/2017 02:37	NP
Benzene	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Carbon disulfide	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Ethylbenzene	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Methylene chloride	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Trichloroethene	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Toluene	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Xylenes, Total	BRL	5.0		ug/L	237172	1	01/31/2017 02:37	NP
Surr: 4-Bromofluorobenzene	89.7	66.1-129		%REC	237172	1	01/31/2017 02:37	NP
Surr: Dibromofluoromethane	94.9	83.6-123		%REC	237172	1	01/31/2017 02:37	NP
Surr: Toluene-d8	98.4	81.8-118		%REC	237172	1	01/31/2017 02:37	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237273	1	02/03/2017 15:57	JR
Arsenic	BRL	0.0500		mg/L	237273	1	02/03/2017 15:57	JR
Barium	0.0516	0.00400		mg/L	237273	1	02/03/2017 15:57	JR
Beryllium	BRL	0.00400		mg/L	237273	1	02/03/2017 15:57	JR
Cadmium	BRL	0.00500		mg/L	237273	1	02/03/2017 15:57	JR
Chromium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:57	JR
Copper	BRL	0.0100		mg/L	237273	1	02/03/2017 15:57	JR
Lead	BRL	0.0100		mg/L	237273	1	02/03/2017 15:57	JR
Nickel	BRL	0.0200		mg/L	237273	1	02/03/2017 15:57	JR
Selenium	BRL	0.0200		mg/L	237273	1	02/03/2017 15:57	JR
Thallium	BRL	0.00200		mg/L	237273	1	02/03/2017 15:57	JR
Vanadium	BRL	0.0100		mg/L	237273	1	02/03/2017 15:57	JR
Zinc	BRL	0.0200		mg/L	237273	1	02/03/2017 15:57	JR
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 17:10	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 17:10	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 17:10	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 17:10	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 17:10	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 17:10	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	AMEC E&I, Inc. -Kennesaw	Client Sample ID:	DUP-5-0117
Project Name:	AGL - Augusta	Collection Date:	1/26/2017 12:00:00 PM
Lab ID:	1701O61-011	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:10	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 17:10	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 17:10	YH
Surr: 4-Terphenyl-d14	90.7	58.5-125		%REC	237121	1	02/01/2017 17:10	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:47	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
<div>Client Sample ID: MW-310SAP-0117Lab ID: 1701O61-002</div> <div>Collection Date: 1/26/2017 10:32:00 AMMatrix: Groundwater</div>							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	63.9		0.180	4.00	ug/L	237273	1
Nickel	437		0.132	20.0	ug/L	237273	1
<div>Client Sample ID: MW-310BR-0117Lab ID: 1701O61-003</div> <div>Collection Date: 1/26/2017 12:37:00 PMMatrix: Groundwater</div>							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	299		0.180	4.00	ug/L	237273	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Anthracene	0.12		0.026	0.050	ug/L	237121	1
<div>Client Sample ID: MW-401S-0117Lab ID: 1701O61-004</div> <div>Collection Date: 1/26/2017 2:32:00 PMMatrix: Groundwater</div>							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	101		0.180	4.00	ug/L	237273	1
<div>Client Sample ID: DUP-4-0117Lab ID: 1701O61-005</div> <div>Collection Date: 1/26/2017 12:00:00 PMMatrix: Groundwater</div>							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	99.8		0.180	4.00	ug/L	237273	1
<div>Client Sample ID: MW-318-0117Lab ID: 1701O61-006</div> <div>Collection Date: 1/26/2017 2:35:00 PMMatrix: Groundwater</div>							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	470		1.4	50	ug/L	237172	10
Xylenes, Total	14		0.30	5.0	ug/L	237172	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	516		0.180	4.00	ug/L	237273	1
Zinc	30.0		3.92	20.0	ug/L	237273	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	320		0.72	50	ug/L	237121	100
Acenaphthene	22		1.7	5.0	ug/L	237121	100
Fluorene	4.6		0.019	0.10	ug/L	237121	1
Phenanthrene	3.2		0.022	0.050	ug/L	237121	1
Anthracene	0.68		0.026	0.050	ug/L	237121	1
Fluoranthene	0.26		0.016	0.10	ug/L	237121	1
Pyrene	0.33		0.015	0.050	ug/L	237121	1
<div>Client Sample ID: MW-401D-0117Lab ID: 1701O61-007</div> <div>Collection Date: 1/26/2017 4:22:00 PMMatrix: Groundwater</div>							
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Trichloroethene	10		0.35	5.0	ug/L	237172	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	63.3		0.180	4.00	ug/L	237273	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Pyrene	0.051		0.015	0.050	ug/L	237121	1
<div>Client Sample ID: MW-607-0117Lab ID: 1701O61-008</div> <div>Collection Date: 1/26/2017 11:50:00 AMMatrix: Groundwater</div>							

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-607-0117 Lab ID: 1701O61-008 Collection Date: 1/26/2017 11:50:00 AM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	472		0.180	4.00	ug/L	237273	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Phenanthrene	0.49		0.022	0.050	ug/L	237121	1
Anthracene	0.10		0.026	0.050	ug/L	237121	1
Fluoranthene	0.75		0.016	0.10	ug/L	237121	1
Pyrene	1.7		0.015	0.050	ug/L	237121	1
Benz(a)anthracene	0.14		0.018	0.050	ug/L	237121	1
Chrysene	0.11		0.017	0.050	ug/L	237121	1
Benzo(b)fluoranthene	0.10		0.020	0.10	ug/L	237121	1
Benzo(k)fluoranthene	0.056		0.026	0.050	ug/L	237121	1
Benzo(a)pyrene	0.096		0.022	0.050	ug/L	237121	1
Client Sample ID: MW-404DR-0117 Lab ID: 1701O61-009 Collection Date: 1/26/2017 3:25:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	139		0.180	4.00	ug/L	237273	1
Client Sample ID: MW-501S-0117 Lab ID: 1701O61-010 Collection Date: 1/26/2017 4:25:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	45.3		0.180	4.00	ug/L	237273	1
Client Sample ID: DUP-5-0117 Lab ID: 1701O61-011 Collection Date: 1/26/2017 12:00:00 PM Matrix: Groundwater							
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	51.6		0.180	4.00	ug/L	237273	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC/Kennecott

Work Order Number 1741041

Checklist completed by Muhammad Raza 1/28/2017
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 4.0°C Cooler #2 2.1°C Cooler #3 3.4°C Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by MR

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701061

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701061-001A	TB-03-0117	1/26/2017 9:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/30/2017
1701061-002A	MW-310SAP-0117	1/26/2017 10:32:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/30/2017
1701061-002B	MW-310SAP-0117	1/26/2017 10:32:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-002C	MW-310SAP-0117	1/26/2017 10:32:00AM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-002C	MW-310SAP-0117	1/26/2017 10:32:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-002D	MW-310SAP-0117	1/26/2017 10:32:00AM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-003A	MW-310BR-0117	1/26/2017 12:37:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/30/2017
1701061-003B	MW-310BR-0117	1/26/2017 12:37:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-003C	MW-310BR-0117	1/26/2017 12:37:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-003C	MW-310BR-0117	1/26/2017 12:37:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-003D	MW-310BR-0117	1/26/2017 12:37:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-004A	MW-401S-0117	1/26/2017 2:32:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-004B	MW-401S-0117	1/26/2017 2:32:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-004C	MW-401S-0117	1/26/2017 2:32:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-004C	MW-401S-0117	1/26/2017 2:32:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-004D	MW-401S-0117	1/26/2017 2:32:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-005A	DUP-4-0117	1/26/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-005B	DUP-4-0117	1/26/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-005C	DUP-4-0117	1/26/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-005C	DUP-4-0117	1/26/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-005D	DUP-4-0117	1/26/2017 12:00:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-006A	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/30/2017
1701061-006B	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-006B	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/02/2017
1701061-006C	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-006C	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-006D	MW-318-0117	1/26/2017 2:35:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-007A	MW-401D-0117	1/26/2017 4:22:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-007B	MW-401D-0117	1/26/2017 4:22:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701061

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701061-007C	MW-401D-0117	1/26/2017 4:22:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-007C	MW-401D-0117	1/26/2017 4:22:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-007D	MW-401D-0117	1/26/2017 4:22:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-008A	MW-607-0117	1/26/2017 11:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-008B	MW-607-0117	1/26/2017 11:50:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-008C	MW-607-0117	1/26/2017 11:50:00AM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-008C	MW-607-0117	1/26/2017 11:50:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-008D	MW-607-0117	1/26/2017 11:50:00AM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-009A	MW-404DR-0117	1/26/2017 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-009B	MW-404DR-0117	1/26/2017 3:25:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-009C	MW-404DR-0117	1/26/2017 3:25:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-009C	MW-404DR-0117	1/26/2017 3:25:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-009D	MW-404DR-0117	1/26/2017 3:25:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-010A	MW-501S-0117	1/26/2017 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-010B	MW-501S-0117	1/26/2017 4:25:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-010C	MW-501S-0117	1/26/2017 4:25:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-010C	MW-501S-0117	1/26/2017 4:25:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-010D	MW-501S-0117	1/26/2017 4:25:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701061-011A	DUP-5-0117	1/26/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		1/30/2017 5:07:00PM	01/31/2017
1701061-011B	DUP-5-0117	1/26/2017 12:00:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00PM	02/01/2017
1701061-011C	DUP-5-0117	1/26/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		2/1/2017 4:06:00PM	02/03/2017
1701061-011C	DUP-5-0117	1/26/2017 12:00:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701061-011D	DUP-5-0117	1/26/2017 12:00:00PM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: MB-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237121				Analysis Date: 01/31/2017	Seq No: 7318485			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.260	0	2.000		113	58.5	125				

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	2.054	0.50	2.000		103	69.1	117				
Acenaphthylene	1.918	1.0	2.000		95.9	59.7	118				
Anthracene	2.195	0.050	2.000		110	64.7	121				
Benz(a)anthracene	2.412	0.050	2.000		121	61.7	139				
Benzo(a)pyrene	2.381	0.050	2.000		119	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	1.914	0.10	2.000		95.7	60.8	129				
Benzo(g,h,i)perylene	2.016	0.10	2.000		101	60.1	129				
Benzo(k)fluoranthene	2.170	0.050	2.000		108	69.6	130				
Chrysene	2.319	0.050	2.000		116	76.5	127				
Dibenz(a,h)anthracene	1.805	0.10	2.000		90.2	55.2	126				
Fluoranthene	2.181	0.10	2.000		109	66.5	133				
Fluorene	2.082	0.10	2.000		104	66.1	122				
Indeno(1,2,3-cd)pyrene	1.974	0.050	2.000		98.7	58.8	132				
Naphthalene	1.956	0.50	2.000	0.04156	95.7	60.6	120				
Phenanthrene	2.065	0.050	2.000		103	65.9	118				
Pyrene	2.257	0.050	2.000		113	70.2	129				
Surr: 4-Terphenyl-d14	2.078	0	2.000		104	58.5	125				

Sample ID: 1701063-005BMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323058			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.811	0.50	2.000		90.6	49.7	118				
Acenaphthylene	1.683	1.0	2.000		84.1	56.7	120				
Anthracene	1.980	0.050	2.000		99.0	54.4	117				
Benz(a)anthracene	2.177	0.050	2.000		109	52.4	135				
Benzo(a)pyrene	1.914	0.050	2.000		95.7	51.5	117				
Benzo(b)fluoranthene	1.625	0.10	2.000	0.02680	79.9	45.6	124				
Benzo(g,h,i)perylene	1.280	0.10	2.000	0.02508	62.7	45.9	120				
Benzo(k)fluoranthene	1.708	0.050	2.000		85.4	51.8	122				
Chrysene	2.066	0.050	2.000	0.02246	102	59.9	120				
Dibenz(a,h)anthracene	1.058	0.10	2.000		52.9	41.6	120				
Fluoranthene	2.080	0.10	2.000	0.04902	102	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: 1701063-005BMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323058			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.837	0.10	2.000		91.8	57.9	117				
Indeno(1,2,3-cd)pyrene	1.380	0.050	2.000		69.0	45.5	120				
Naphthalene	1.767	0.50	2.000		88.3	53.9	120				
Phenanthrene	1.887	0.050	2.000	0.02576	93.0	58.1	120				
Pyrene	2.022	0.050	2.000	0.05133	98.5	61.6	120				
Surr: 4-Terphenyl-d14	1.800	0	2.000		90.0	58.5	125				

Sample ID: 1701063-005BMSD	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335506			
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323059			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.820	0.50	2.000		91.0	49.7	118	1.811	0.496	17.4	
Acenaphthylene	1.694	1.0	2.000		84.7	56.7	120	1.683	0.638	19.5	
Anthracene	2.066	0.050	2.000		103	54.4	117	1.980	4.25	24.5	
Benz(a)anthracene	2.288	0.050	2.000		114	52.4	135	2.177	4.97	30.2	
Benzo(a)pyrene	1.883	0.050	2.000		94.2	51.5	117	1.914	1.59	25.6	
Benzo(b)fluoranthene	1.670	0.10	2.000	0.02680	82.2	45.6	124	1.625	2.70	20.9	
Benzo(g,h,i)perylene	1.166	0.10	2.000	0.02508	57.1	45.9	120	1.280	9.28	28.6	
Benzo(k)fluoranthene	1.676	0.050	2.000		83.8	51.8	122	1.708	1.91	28.6	
Chrysene	2.092	0.050	2.000	0.02246	103	59.9	120	2.066	1.26	26.4	
Dibenz(a,h)anthracene	0.9449	0.10	2.000		47.2	41.6	120	1.058	11.3	17.8	
Fluoranthene	2.204	0.10	2.000	0.04902	108	59.7	122	2.080	5.78	22.1	
Fluorene	1.842	0.10	2.000		92.1	57.9	117	1.837	0.292	20.8	
Indeno(1,2,3-cd)pyrene	1.188	0.050	2.000		59.4	45.5	120	1.380	15.0	19.3	
Naphthalene	1.743	0.50	2.000		87.2	53.9	120	1.767	1.35	20.6	
Phenanthrene	1.944	0.050	2.000	0.02576	95.9	58.1	120	1.887	2.99	19.4	
Pyrene	2.107	0.050	2.000	0.05133	103	61.6	120	2.022	4.10	21.2	
Surr: 4-Terphenyl-d14	1.837	0	2.000		91.9	58.5	125	1.800	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237121

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237172

Sample ID: MB-237172	Client ID:	Units: ug/L				Prep Date: 01/30/2017	Run No: 335376				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237172				Analysis Date: 01/30/2017	Seq No: 7317399				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.19	0	50.00		94.4	66.1	129				
Surr: Dibromofluoromethane	48.50	0	50.00		97.0	83.6	123				
Surr: Toluene-d8	49.15	0	50.00		98.3	81.8	118				

Sample ID: LCS-237172	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335393			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237172	Analysis Date: 01/31/2017	Seq No: 7318121			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	49.11	5.0	50.00		98.2	74	125				
Toluene	51.08	5.0	50.00		102	75.9	126				
Trichloroethene	52.68	5.0	50.00		105	70.6	129				
Surr: 4-Bromofluorobenzene	45.29	0	50.00		90.6	66.1	129				
Surr: Dibromofluoromethane	47.99	0	50.00		96.0	83.6	123				
Surr: Toluene-d8	49.12	0	50.00		98.2	81.8	118				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237172

Sample ID: 1701N19-010AMS	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335393			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237172	Analysis Date: 01/31/2017	Seq No: 7319256			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	2182	250	2500		87.3	71.6	132				
Toluene	2316	250	2500	75.50	89.6	72.5	135				
Trichloroethene	2332	250	2500		93.3	70.2	132				
Surr: 4-Bromofluorobenzene	2329	0	2500		93.2	66.1	129				
Surr: Dibromofluoromethane	2398	0	2500		95.9	83.6	123				
Surr: Toluene-d8	2450	0	2500		98.0	81.8	118				

Sample ID: 1701N19-010AMSD	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335393			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237172	Analysis Date: 01/31/2017	Seq No: 7319257			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	2212	250	2500		88.5	71.6	132	2182	1.32	20.7	
Toluene	2376	250	2500	75.50	92.0	72.5	135	2316	2.56	23.2	
Trichloroethene	2372	250	2500		94.9	70.2	132	2332	1.66	27.7	
Surr: 4-Bromofluorobenzene	2327	0	2500		93.1	66.1	129	2329	0	0	
Surr: Dibromofluoromethane	2450	0	2500		98.0	83.6	123	2398	0	0	
Surr: Toluene-d8	2474	0	2500		99.0	81.8	118	2450	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237273

Sample ID: MB-237273	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335675			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237273				Analysis Date: 02/03/2017	Seq No: 7329016			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237273	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335675			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237273				Analysis Date: 02/03/2017	Seq No: 7329018			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1014	0.00500	0.1000	0.0009086	101	80	120				
Arsenic	0.09560	0.00500	0.1000		95.6	80	120				
Barium	0.09718	0.0100	0.1000		97.2	80	120				
Beryllium	0.08554	0.00100	0.1000		85.5	80	120				
Cadmium	0.1021	0.000700	0.1000		102	80	120				
Chromium	0.09735	0.00500	0.1000	0.0001898	97.2	80	120				
Copper	0.1001	0.00200	0.1000	0.0006890	99.4	80	120				
Lead	0.1059	0.00100	0.1000		106	80	120				
Nickel	0.1000	0.00500	0.1000	0.0002025	99.8	80	120				
Selenium	0.09217	0.00500	0.1000		92.2	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT

BatchID: 237273

Sample ID: LCS-237273	Client ID:	Units: mg/L				Prep Date: 02/01/2017	Run No: 335675				
SampleType: LCS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237273				Analysis Date: 02/03/2017	Seq No: 7329018				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.1070	0.00100	0.1000		107	80	120				
Vanadium	0.09760	0.00500	0.1000	0.0001615	97.4	80	120				
Zinc	0.09938	0.0100	0.1000		99.4	80	120				

Sample ID: 1701061-002CMS	Client ID: MW-310SAP-0117	Units: mg/L				Prep Date: 02/01/2017	Run No: 335675				
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237273				Analysis Date: 02/03/2017	Seq No: 7329022			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09215	0.00500	0.1000	0.0006612	91.5	75	125				
Arsenic	0.09205	0.00500	0.1000	0.0002037	91.9	75	125				
Barium	0.1514	0.0100	0.1000	0.06395	87.4	75	125				
Beryllium	0.08993	0.00100	0.1000	0.0002186	89.7	75	125				
Cadmium	0.09647	0.000700	0.1000	0.0001999	96.3	75	125				
Chromium	0.09379	0.00500	0.1000	0.003499	90.3	75	125				
Copper	0.08996	0.00200	0.1000	0.001469	88.5	75	125				
Lead	0.09790	0.00100	0.1000		97.9	75	125				
Nickel	0.5558	0.00500	0.1000	0.4372	119	75	125				
Selenium	0.08803	0.00500	0.1000	0.0006434	87.4	75	125				
Thallium	0.09933	0.00100	0.1000	0.0001794	99.1	75	125				
Vanadium	0.09294	0.00500	0.1000	0.0005762	92.4	75	125				
Zinc	0.1005	0.0100	0.1000	0.01305	87.4	75	125				

Sample ID: 1701O61-002CMSD	Client ID: MW-310SAP-0117	Units: mg/L				Prep Date: 02/01/2017	Run No: 335675				
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237273				Analysis Date: 02/03/2017	Seq No: 7329024			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09352	0.00500	0.1000	0.0006612	92.9	75	125	0.09215	1.48	20	
Arsenic	0.09468	0.00500	0.1000	0.0002037	94.5	75	125	0.09205	2.81	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237273

Sample ID: 1701O61-002CMSD	Client ID: MW-310SAP-0117	Units: mg/L			Prep Date: 02/01/2017	Run No: 335675					
SampleType: MSD	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237273			Analysis Date: 02/03/2017	Seq No: 7329024					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.1534	0.0100	0.1000	0.06395	89.5	75	125	0.1514	1.35	20	
Beryllium	0.09662	0.00100	0.1000	0.0002186	96.4	75	125	0.08993	7.18	20	
Cadmium	0.09919	0.000700	0.1000	0.0001999	99.0	75	125	0.09647	2.78	20	
Chromium	0.09725	0.00500	0.1000	0.003499	93.8	75	125	0.09379	3.63	20	
Copper	0.09035	0.00200	0.1000	0.001469	88.9	75	125	0.08996	0.424	20	
Lead	0.1006	0.00100	0.1000		101	75	125	0.09790	2.73	20	
Nickel	0.5589	0.00500	0.1000	0.4372	122	75	125	0.5558	0.540	20	
Selenium	0.09096	0.00500	0.1000	0.0006434	90.3	75	125	0.08803	3.27	20	
Thallium	0.1021	0.00100	0.1000	0.0001794	102	75	125	0.09933	2.73	20	
Vanadium	0.09598	0.00500	0.1000	0.0005762	95.4	75	125	0.09294	3.22	20	
Zinc	0.1001	0.0100	0.1000	0.01305	87.1	75	125	0.1005	0.352	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT

BatchID: 237297

Sample ID: MB-237297		Client ID:			Units: mg/L			Prep Date: 02/01/2017		Run No: 335519	
SampleType: MBLK		TestCode: Cyanide SW9014			BatchID: 237297			Analysis Date: 02/01/2017		Seq No: 7321188	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237297		Client ID:		Units: mg/L		Prep Date: 02/01/2017		Run No: 335519			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237297		Analysis Date: 02/01/2017		Seq No: 7321189			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701062-005DMS	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335519			
SampleType: MS	TestCode: Cyanide	SW9014	BatchID: 237297				Analysis Date: 02/01/2017	Seq No: 7321209			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2290 0.010 0.2500 91.6 70 130

Sample ID: 1701062-005DMSD		Client ID:		Units: mg/L		Prep Date: 02/01/2017		Run No: 335519			
SampleType: MSD		TestCode: Cyanide SW9014		BatchID: 237297		Analysis Date: 02/01/2017		Seq No: 7321210			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2480 0.010 0.2500 99.2 70 130 0.2290 7.97 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701061

ANALYTICAL QC SUMMARY REPORT

BatchID: 237317

Sample ID: MB-237317	Client ID:					Units: mg/L	Prep Date: 02/02/2017	Run No: 335656			
SampleType: MBLK	TestCode: Mercury, Total	SW7470A	BatchID: 237317				Analysis Date: 02/02/2017	Seq No: 7325603			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237317	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: LCS	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325604				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005418 0.00020 0.0050 0.00007789 107 80 120

Sample ID: 1701062-001CMS	Client ID:	Units: mg/L	Prep Date: 02/02/2017	Run No: 335656							
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 237317	Analysis Date: 02/02/2017	Seq No: 7325608							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005075 0.00020 0.0050 0.00007107 100 70 130

Sample ID: 1701062-005CMS	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MS	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325612				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005283 0.00020 0.0050 106 70 130

Sample ID: 1701063-005CMS	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MS	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325615				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005311 0.00020 0.0050 0.00007798 105 70 130

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O61

ANALYTICAL QC SUMMARY REPORT

BatchID: 237317

Sample ID: 1701O62-001CMSD		Client ID:				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325609	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005126	0.00020	0.0050	0.00007107	101	70	130	0.005075	0.996	20	

Sample ID: 1701O62-005CMSD		Client ID:				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325613	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005210	0.00020	0.0050		104	70	130	0.005283	1.40	20	

Sample ID: 1701O63-005CMSD		Client ID:				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325616	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005270	0.00020	0.0050	0.00007798	104	70	130	0.005311	0.774	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 07, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701O62

Analytical Environmental Services, Inc. received 5 samples on 1/28/2017 11:23:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 171062

Date: 1/27/17 Page 1 of 1

COMPANY: Amec Foster Wheeler		ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers				
PHONE: 770-421-3400		FAX: 770-421-3486		<div style="display: flex; justify-content: space-between;"> <div> VOC List 8260 PAHs 8270C Metals + Hg 6020 7470A CN 9014 </div> <div> </div> </div>																		
SAMPLED BY: Jeff Moore		SIGNATURE: <i>[Signature]</i>		PRESERVATION (See codes)												REMARKS						
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H	I	N	Z	2	5	6	7	8				9	10	11	12
1	MW-513BR-0117	1-26-17	9:45	X		GW	2	2	1	1												6
2	MW-513BR-0117-MS/MSD	1-26-17	9:45	X		GW	2	2	1	1												6
3	MW-315-0117	1-26-17	11:12	X		GW	2	2	1	1												6
4	MW-408S-0117	1-26-17	12:48	X		GW	2	2	1	1												6
5	MW-408DR-0117	1-26-17	2:00	X		GW	2	2	1	1												6
6	MW-507BR-0117	1-27-17	8:43	X		GW	2	2	1	1												6
7	MW-507BR-0117-MS/MSD	1-27-17	8:43	X		GW	2	2	1	1												6
8																						
9																						
10																						
11																						
12																						
13																						
14																						

RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:	DATE/TIME:	PROJECT INFORMATION		RECEIPT	
1:	<i>[Signature]</i>	1-28-17/1125	1:	<i>[Signature]</i>	1/28/17 11:23	PROJECT NAME:	AGL Augusta	Total # of Containers
2:			2:			PROJECT #:	6122150235	Turnaround Time Request <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other
3:			3:			SITE ADDRESS:	Augusta, GA	
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD: OUT / / VIA: IN / / VIA: <input checked="" type="checkbox"/> CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER			SEND REPORT TO:		STATE PROGRAM (if any): <input checked="" type="checkbox"/> Yes Fax? DATA PACKAGE: I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>
						INVOICE TO: (IF DIFFERENT FROM ABOVE)		
						QUOTE #:		PO#:

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None White Copy - Original; Yellow Copy - Client

17p1062

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony - 0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O62-001

Client Sample ID: MW-513BR-0117
Collection Date: 1/26/2017 9:45:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 16:17	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 16:17	NP
Surr: 4-Bromofluorobenzene	85.9	66.1-129		%REC	237356	1	02/02/2017 16:17	NP
Surr: Dibromofluoromethane	111	83.6-123		%REC	237356	1	02/02/2017 16:17	NP
Surr: Toluene-d8	94.2	81.8-118		%REC	237356	1	02/02/2017 16:17	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237235	1	02/01/2017 16:44	JS
Arsenic	BRL	0.0500		mg/L	237235	1	02/01/2017 16:44	JS
Barium	0.637	0.00400		mg/L	237235	1	02/03/2017 10:18	JS
Beryllium	BRL	0.00400		mg/L	237235	1	02/01/2017 16:44	JS
Cadmium	BRL	0.00500		mg/L	237235	1	02/01/2017 16:44	JS
Chromium	BRL	0.0100		mg/L	237235	1	02/01/2017 16:44	JS
Copper	BRL	0.0100		mg/L	237235	1	02/01/2017 16:44	JS
Lead	BRL	0.0100		mg/L	237235	1	02/01/2017 16:44	JS
Nickel	BRL	0.0200		mg/L	237235	1	02/01/2017 16:44	JS
Selenium	BRL	0.0200		mg/L	237235	1	02/01/2017 16:44	JS
Thallium	BRL	0.00200		mg/L	237235	1	02/01/2017 16:44	JS
Vanadium	BRL	0.0100		mg/L	237235	1	02/01/2017 16:44	JS
Zinc	BRL	0.0200		mg/L	237235	1	02/01/2017 16:44	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237158	1	02/01/2017 18:49	YH
Acenaphthylene	BRL	1.0		ug/L	237158	1	02/01/2017 18:49	YH
Acenaphthene	3.7	0.50		ug/L	237158	1	02/01/2017 18:49	YH
Fluorene	BRL	0.10		ug/L	237158	1	02/01/2017 18:49	YH
Phenanthrene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Anthracene	0.057	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 18:49	YH
Pyrene	0.068	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Benz(a)anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Chrysene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 18:49	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O62-001

Client Sample ID: MW-513BR-0117
 Collection Date: 1/26/2017 9:45:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 18:49	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237158	1	02/01/2017 18:49	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237158	1	02/01/2017 18:49	YH
Surr: 4-Terphenyl-d14	102	58.5-125		%REC	237158	1	02/01/2017 18:49	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:06	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237285	1	01/31/2017 11:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O62-002

Client Sample ID: MW-315-0117
Collection Date: 1/26/2017 11:12:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 19:47	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 19:47	NP
Surr: 4-Bromofluorobenzene	86.3	66.1-129		%REC	237356	1	02/02/2017 19:47	NP
Surr: Dibromofluoromethane	119	83.6-123		%REC	237356	1	02/02/2017 19:47	NP
Surr: Toluene-d8	98.3	81.8-118		%REC	237356	1	02/02/2017 19:47	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237239	1	02/01/2017 23:21	JS
Arsenic	BRL	0.0500		mg/L	237239	1	02/01/2017 23:21	JS
Barium	0.422	0.00400		mg/L	237239	1	02/01/2017 23:21	JS
Beryllium	BRL	0.00400		mg/L	237239	1	02/01/2017 23:21	JS
Cadmium	BRL	0.00500		mg/L	237239	1	02/01/2017 23:21	JS
Chromium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:21	JS
Copper	BRL	0.0100		mg/L	237239	1	02/01/2017 23:21	JS
Lead	BRL	0.0100		mg/L	237239	1	02/01/2017 23:21	JS
Nickel	BRL	0.0200		mg/L	237239	1	02/01/2017 23:21	JS
Selenium	BRL	0.0200		mg/L	237239	1	02/01/2017 23:21	JS
Thallium	BRL	0.00200		mg/L	237239	1	02/01/2017 23:21	JS
Vanadium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:21	JS
Zinc	BRL	0.0200		mg/L	237239	1	02/01/2017 23:21	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237158	1	02/01/2017 21:21	YH
Acenaphthylene	BRL	1.0		ug/L	237158	1	02/01/2017 21:21	YH
Acenaphthene	4.5	0.50		ug/L	237158	1	02/01/2017 21:21	YH
Fluorene	BRL	0.10		ug/L	237158	1	02/01/2017 21:21	YH
Phenanthrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 21:21	YH
Pyrene	0.12	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Benz(a)anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Chrysene	0.063	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Benzo(b)fluoranthene	0.11	0.10		ug/L	237158	1	02/01/2017 21:21	YH
Benzo(k)fluoranthene	0.057	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:21	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O62-002

Client Sample ID: MW-315-0117
 Collection Date: 1/26/2017 11:12:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:21	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237158	1	02/01/2017 21:21	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237158	1	02/01/2017 21:21	YH
Surr: 4-Terphenyl-d14	99.7	58.5-125		%REC	237158	1	02/01/2017 21:21	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:53	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O62-003

Client Sample ID: MW-408S-0117
Collection Date: 1/26/2017 12:48:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 20:10	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 20:10	NP
Surr: 4-Bromofluorobenzene	86.6	66.1-129		%REC	237356	1	02/02/2017 20:10	NP
Surr: Dibromofluoromethane	117	83.6-123		%REC	237356	1	02/02/2017 20:10	NP
Surr: Toluene-d8	99.1	81.8-118		%REC	237356	1	02/02/2017 20:10	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237239	1	02/01/2017 23:27	JS
Arsenic	0.148	0.0500		mg/L	237239	1	02/01/2017 23:27	JS
Barium	0.330	0.00400		mg/L	237239	1	02/01/2017 23:27	JS
Beryllium	BRL	0.00400		mg/L	237239	1	02/01/2017 23:27	JS
Cadmium	BRL	0.00500		mg/L	237239	1	02/01/2017 23:27	JS
Chromium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:27	JS
Copper	BRL	0.0100		mg/L	237239	1	02/01/2017 23:27	JS
Lead	BRL	0.0100		mg/L	237239	1	02/01/2017 23:27	JS
Nickel	BRL	0.0200		mg/L	237239	1	02/01/2017 23:27	JS
Selenium	BRL	0.0200		mg/L	237239	1	02/01/2017 23:27	JS
Thallium	BRL	0.00200		mg/L	237239	1	02/01/2017 23:27	JS
Vanadium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:27	JS
Zinc	BRL	0.0200		mg/L	237239	1	02/01/2017 23:27	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237158	1	02/01/2017 21:47	YH
Acenaphthylene	BRL	1.0		ug/L	237158	1	02/01/2017 21:47	YH
Acenaphthene	BRL	0.50		ug/L	237158	1	02/01/2017 21:47	YH
Fluorene	BRL	0.10		ug/L	237158	1	02/01/2017 21:47	YH
Phenanthrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 21:47	YH
Pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Benz(a)anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Chrysene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 21:47	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O62-003

Client Sample ID: MW-408S-0117
 Collection Date: 1/26/2017 12:48:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 21:47	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237158	1	02/01/2017 21:47	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237158	1	02/01/2017 21:47	YH
Surr: 4-Terphenyl-d14	93.6	58.5-125		%REC	237158	1	02/01/2017 21:47	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:54	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237286	1	01/31/2017 14:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O62-004

Client Sample ID: MW-408DR-0117
Collection Date: 1/26/2017 2:00:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 22:06	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 22:06	NP
Surr: 4-Bromofluorobenzene	92.6	66.1-129		%REC	237356	1	02/02/2017 22:06	NP
Surr: Dibromofluoromethane	115	83.6-123		%REC	237356	1	02/02/2017 22:06	NP
Surr: Toluene-d8	96	81.8-118		%REC	237356	1	02/02/2017 22:06	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237239	1	02/01/2017 23:34	JS
Arsenic	BRL	0.0500		mg/L	237239	1	02/01/2017 23:34	JS
Barium	0.555	0.00400		mg/L	237239	1	02/01/2017 23:34	JS
Beryllium	BRL	0.00400		mg/L	237239	1	02/01/2017 23:34	JS
Cadmium	BRL	0.00500		mg/L	237239	1	02/01/2017 23:34	JS
Chromium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:34	JS
Copper	BRL	0.0100		mg/L	237239	1	02/01/2017 23:34	JS
Lead	BRL	0.0100		mg/L	237239	1	02/01/2017 23:34	JS
Nickel	BRL	0.0200		mg/L	237239	1	02/01/2017 23:34	JS
Selenium	BRL	0.0200		mg/L	237239	1	02/01/2017 23:34	JS
Thallium	BRL	0.00200		mg/L	237239	1	02/01/2017 23:34	JS
Vanadium	BRL	0.0100		mg/L	237239	1	02/01/2017 23:34	JS
Zinc	BRL	0.0200		mg/L	237239	1	02/01/2017 23:34	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237158	1	02/01/2017 22:13	YH
Acenaphthylene	BRL	1.0		ug/L	237158	1	02/01/2017 22:13	YH
Acenaphthene	36	5.0		ug/L	237158	100	02/02/2017 12:40	YH
Fluorene	1.5	0.10		ug/L	237158	1	02/01/2017 22:13	YH
Phenanthrene	5.5	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Anthracene	0.92	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Fluoranthene	0.24	0.10		ug/L	237158	1	02/01/2017 22:13	YH
Pyrene	0.19	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Benz(a)anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Chrysene	BRL	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 22:13	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 22:13	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O62-004

Client Sample ID: MW-408DR-0117
 Collection Date: 1/26/2017 2:00:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 22:13	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237158	1	02/01/2017 22:13	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237158	1	02/01/2017 22:13	YH
Surr: 4-Terphenyl-d14	107	58.5-125		%REC	237158	1	02/01/2017 22:13	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:56	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O62-005

Client Sample ID: MW507BR-0117
Collection Date: 1/27/2017 8:43:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 17:27	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 17:27	NP
Surr: 4-Bromofluorobenzene	85.5	66.1-129		%REC	237356	1	02/02/2017 17:27	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237356	1	02/02/2017 17:27	NP
Surr: Toluene-d8	96.3	81.8-118		%REC	237356	1	02/02/2017 17:27	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237239	1	02/01/2017 17:22	JS
Arsenic	BRL	0.0500		mg/L	237239	1	02/01/2017 17:22	JS
Barium	0.0728	0.00400		mg/L	237239	1	02/01/2017 17:22	JS
Beryllium	BRL	0.00400		mg/L	237239	1	02/01/2017 17:22	JS
Cadmium	BRL	0.00500		mg/L	237239	1	02/01/2017 17:22	JS
Chromium	BRL	0.0100		mg/L	237239	1	02/01/2017 17:22	JS
Copper	BRL	0.0100		mg/L	237239	1	02/01/2017 17:22	JS
Lead	BRL	0.0100		mg/L	237239	1	02/01/2017 17:22	JS
Nickel	BRL	0.0200		mg/L	237239	1	02/01/2017 17:22	JS
Selenium	BRL	0.0200		mg/L	237239	1	02/01/2017 17:22	JS
Thallium	BRL	0.00200		mg/L	237239	1	02/01/2017 17:22	JS
Vanadium	BRL	0.0100		mg/L	237239	1	02/01/2017 17:22	JS
Zinc	BRL	0.0200		mg/L	237239	1	02/01/2017 17:22	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237158	1	02/01/2017 20:04	YH
Acenaphthylene	BRL	1.0		ug/L	237158	1	02/01/2017 20:04	YH
Acenaphthene	BRL	0.50		ug/L	237158	1	02/01/2017 20:04	YH
Fluorene	BRL	0.10		ug/L	237158	1	02/01/2017 20:04	YH
Phenanthrene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 20:04	YH
Pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Benz(a)anthracene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Chrysene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237158	1	02/01/2017 20:04	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O62-005

Client Sample ID: MW507BR-0117
 Collection Date: 1/27/2017 8:43:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237158	1	02/01/2017 20:04	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237158	1	02/01/2017 20:04	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237158	1	02/01/2017 20:04	YH
Surr: 4-Terphenyl-d14	91.4	58.5-125		%REC	237158	1	02/01/2017 20:04	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:14	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-513BR-0117				Lab ID: 1701O62-001			
Collection Date: 1/26/2017 9:45:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	637		0.180	4.00	ug/L	237235	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthene	3.7		0.017	0.50	ug/L	237158	1
Anthracene	0.057		0.026	0.050	ug/L	237158	1
Pyrene	0.068		0.015	0.050	ug/L	237158	1
Client Sample ID: MW-315-0117				Lab ID: 1701O62-002			
Collection Date: 1/26/2017 11:12:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	422		0.180	4.00	ug/L	237239	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthene	4.5		0.017	0.50	ug/L	237158	1
Pyrene	0.12		0.015	0.050	ug/L	237158	1
Chrysene	0.063		0.017	0.050	ug/L	237158	1
Benzo(b)fluoranthene	0.11		0.020	0.10	ug/L	237158	1
Benzo(k)fluoranthene	0.057		0.026	0.050	ug/L	237158	1
Client Sample ID: MW-408S-0117				Lab ID: 1701O62-003			
Collection Date: 1/26/2017 12:48:00 PM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Arsenic	148		0.125	50.0	ug/L	237239	1
Barium	330		0.180	4.00	ug/L	237239	1
Client Sample ID: MW-408DR-0117				Lab ID: 1701O62-004			
Collection Date: 1/26/2017 2:00:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	555		0.180	4.00	ug/L	237239	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthene	36		1.7	5.0	ug/L	237158	100
Fluorene	1.5		0.019	0.10	ug/L	237158	1
Phenanthrene	5.5		0.022	0.050	ug/L	237158	1
Anthracene	0.92		0.026	0.050	ug/L	237158	1
Fluoranthene	0.24		0.016	0.10	ug/L	237158	1
Pyrene	0.19		0.015	0.050	ug/L	237158	1
Client Sample ID: MW507BR-0117				Lab ID: 1701O62-005			
Collection Date: 1/27/2017 8:43:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	72.8		0.180	4.00	ug/L	237239	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC/Kennesaw

Work Order Number 1741042

Checklist completed by Miriam Pauer 1/30/2017
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 1.3°C Cooler #2 1.6°C Cooler #3 4.0°C Cooler #4 2.9°C Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☐ No ☒ Not Applicable ☐

Adjusted? MP Checked by MP

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab Order: 1701O62

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701O62-001A	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1701O62-001B	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/01/2017
1701O62-001C	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/01/2017
1701O62-001C	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/03/2017
1701O62-001C	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701O62-001D	MW-513BR-0117	1/26/2017 9:45:00AM	Groundwater	Cyanide		1/31/2017 11:00:00AM	01/31/2017
1701O62-002A	MW-315-0117	1/26/2017 11:12:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1701O62-002B	MW-315-0117	1/26/2017 11:12:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/01/2017
1701O62-002C	MW-315-0117	1/26/2017 11:12:00AM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/01/2017
1701O62-002C	MW-315-0117	1/26/2017 11:12:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701O62-002D	MW-315-0117	1/26/2017 11:12:00AM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701O62-003A	MW-408S-0117	1/26/2017 12:48:00PM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1701O62-003B	MW-408S-0117	1/26/2017 12:48:00PM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/01/2017
1701O62-003C	MW-408S-0117	1/26/2017 12:48:00PM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/01/2017
1701O62-003C	MW-408S-0117	1/26/2017 12:48:00PM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701O62-003D	MW-408S-0117	1/26/2017 12:48:00PM	Groundwater	Cyanide		1/31/2017 2:00:00PM	01/31/2017
1701O62-004A	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1701O62-004B	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/01/2017
1701O62-004B	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/02/2017
1701O62-004C	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/01/2017
1701O62-004C	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701O62-004D	MW-408DR-0117	1/26/2017 2:00:00AM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017
1701O62-005A	MW507BR-0117	1/27/2017 8:43:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1701O62-005B	MW507BR-0117	1/27/2017 8:43:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/31/2017 3:30:00PM	02/01/2017
1701O62-005C	MW507BR-0117	1/27/2017 8:43:00AM	Groundwater	Total Metals by ICP/MS		1/31/2017 8:10:00PM	02/01/2017
1701O62-005C	MW507BR-0117	1/27/2017 8:43:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00AM	02/02/2017
1701O62-005D	MW507BR-0117	1/27/2017 8:43:00AM	Groundwater	Cyanide		2/1/2017 8:45:00AM	02/01/2017

* Number of Pellets when adding NaOH

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237158

Sample ID: MB-237158	Client ID:					Units: ug/L	Prep Date: 01/31/2017	Run No: 335417			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237158	Analysis Date: 01/31/2017	Seq No: 7320084			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.121	0	2.000		106	58.5	125				

Sample ID: LCS-237158	Client ID:					Units: ug/L	Prep Date: 01/31/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237158	Analysis Date: 01/31/2017	Seq No: 7320085			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.872	0.50	2.000		93.6	69.1	117				
Acenaphthylene	1.661	1.0	2.000		83.0	59.7	118				
Anthracene	2.057	0.050	2.000		103	64.7	121				
Benz(a)anthracene	2.002	0.050	2.000		100	61.7	139				
Benzo(a)pyrene	2.116	0.050	2.000		106	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237158**

Sample ID: LCS-237158	Client ID:					Units: ug/L	Prep Date: 01/31/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237158	Analysis Date: 01/31/2017	Seq No: 7320085			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	1.624	0.10	2.000		81.2	60.8	129				
Benzo(g,h,i)perylene	1.890	0.10	2.000		94.5	60.1	129				
Benzo(k)fluoranthene	2.162	0.050	2.000		108	69.6	130				
Chrysene	2.280	0.050	2.000		114	76.5	127				
Dibenz(a,h)anthracene	1.520	0.10	2.000		76.0	55.2	126				
Fluoranthene	2.095	0.10	2.000		105	66.5	133				
Fluorene	1.843	0.10	2.000		92.2	66.1	122				
Indeno(1,2,3-cd)pyrene	1.771	0.050	2.000		88.5	58.8	132				
Naphthalene	1.733	0.50	2.000	0.09626	81.9	60.6	120				
Phenanthrene	1.991	0.050	2.000		99.6	65.9	118				
Pyrene	2.127	0.050	2.000		106	70.2	129				
Surr: 4-Terphenyl-d14	2.115	0	2.000		106	58.5	125				

Sample ID: 1701062-001BMS	Client ID: MW-513BR-0117				Units: ug/L	Prep Date: 01/31/2017	Run No: 335506				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237158	Analysis Date: 02/01/2017	Seq No: 7323061				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	5.562	0.50	2.000	3.652	95.5	49.7	118				
Acenaphthylene	1.661	1.0	2.000		83.1	56.7	120				
Anthracene	2.003	0.050	2.000	0.05746	97.3	54.4	117				
Benz(a)anthracene	2.250	0.050	2.000		113	52.4	135				
Benzo(a)pyrene	2.039	0.050	2.000		102	51.5	117				
Benzo(b)fluoranthene	1.637	0.10	2.000		81.9	45.6	124				
Benzo(g,h,i)perylene	1.637	0.10	2.000		81.9	45.9	120				
Benzo(k)fluoranthene	1.864	0.050	2.000		93.2	51.8	122				
Chrysene	2.042	0.050	2.000		102	59.9	120				
Dibenz(a,h)anthracene	1.399	0.10	2.000		70.0	41.6	120				
Fluoranthene	2.062	0.10	2.000		103	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237158

Sample ID: 1701062-001BMS	Client ID: MW-513BR-0117				Units: ug/L	Prep Date: 01/31/2017	Run No: 335506				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237158	Analysis Date: 02/01/2017	Seq No: 7323061				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.796	0.10	2.000		89.8	57.9	117				
Indeno(1,2,3-cd)pyrene	1.660	0.050	2.000		83.0	45.5	120				
Naphthalene	1.727	0.50	2.000		86.3	53.9	120				
Phenanthrene	1.798	0.050	2.000		89.9	58.1	120				
Pyrene	2.115	0.050	2.000	0.06808	102	61.6	120				
Surr: 4-Terphenyl-d14	1.914	0	2.000		95.7	58.5	125				

Sample ID: 1701062-005BMS	Client ID: MW507BR-0117				Units: ug/L	Prep Date: 01/31/2017	Run No: 335506				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237158	Analysis Date: 02/01/2017	Seq No: 7323064				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.783	0.50	2.000		89.1	49.7	118				
Acenaphthylene	1.640	1.0	2.000		82.0	56.7	120				
Anthracene	1.909	0.050	2.000		95.5	54.4	117				
Benz(a)anthracene	2.030	0.050	2.000		101	52.4	135				
Benzo(a)pyrene	1.775	0.050	2.000		88.8	51.5	117				
Benzo(b)fluoranthene	1.424	0.10	2.000		71.2	45.6	124				
Benzo(g,h,i)perylene	1.326	0.10	2.000		66.3	45.9	120				
Benzo(k)fluoranthene	1.685	0.050	2.000		84.2	51.8	122				
Chrysene	1.985	0.050	2.000		99.3	59.9	120				
Dibenz(a,h)anthracene	1.213	0.10	2.000		60.6	41.6	120				
Fluoranthene	1.996	0.10	2.000		99.8	59.7	122				
Fluorene	1.821	0.10	2.000		91.1	57.9	117				
Indeno(1,2,3-cd)pyrene	1.257	0.050	2.000		62.9	45.5	120				
Naphthalene	1.680	0.50	2.000	0.02475	82.8	53.9	120				
Phenanthrene	1.828	0.050	2.000		91.4	58.1	120				
Pyrene	1.914	0.050	2.000	0.01962	94.7	61.6	120				
Surr: 4-Terphenyl-d14	1.824	0	2.000		91.2	58.5	125				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O62

ANALYTICAL QC SUMMARY REPORT**BatchID: 237158**

Sample ID: 1701O62-001BMSD	Client ID: MW-513BR-0117				Units: ug/L	Prep Date: 01/31/2017	Run No: 335506				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237158	Analysis Date: 02/01/2017	Seq No: 7323062				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	5.262	0.50	2.000	3.652	80.5	49.7	118	5.562	5.55	17.4	
Acenaphthylene	1.629	1.0	2.000		81.4	56.7	120	1.661	1.96	19.5	
Anthracene	1.703	0.050	2.000	0.05746	82.3	54.4	117	2.003	16.2	24.5	
Benz(a)anthracene	2.056	0.050	2.000		103	52.4	135	2.250	9.02	30.2	
Benzo(a)pyrene	1.091	0.050	2.000		54.6	51.5	117	2.039	60.6	25.6	R
Benzo(b)fluoranthene	1.643	0.10	2.000		82.2	45.6	124	1.637	0.372	20.9	
Benzo(g,h,i)perylene	1.275	0.10	2.000		63.7	45.9	120	1.637	24.9	28.6	
Benzo(k)fluoranthene	1.814	0.050	2.000		90.7	51.8	122	1.864	2.68	28.6	
Chrysene	1.961	0.050	2.000		98.1	59.9	120	2.042	4.03	26.4	
Dibenz(a,h)anthracene	1.340	0.10	2.000		67.0	41.6	120	1.399	4.32	17.8	
Fluoranthene	2.007	0.10	2.000		100	59.7	122	2.062	2.71	22.1	
Fluorene	1.772	0.10	2.000		88.6	57.9	117	1.796	1.38	20.8	
Indeno(1,2,3-cd)pyrene	1.591	0.050	2.000		79.6	45.5	120	1.660	4.26	19.3	
Naphthalene	1.656	0.50	2.000		82.8	53.9	120	1.727	4.20	20.6	
Phenanthrene	1.767	0.050	2.000		88.3	58.1	120	1.798	1.74	19.4	
Pyrene	1.940	0.050	2.000	0.06808	93.6	61.6	120	2.115	8.59	21.2	
Surr: 4-Terphenyl-d14	1.853	0	2.000		92.6	58.5	125	1.914	0	0	

Sample ID: 1701O62-005BMSD	Client ID: MW507BR-0117				Units: ug/L	Prep Date: 01/31/2017	Run No: 335506				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237158			Analysis Date: 02/01/2017	Seq No: 7323065				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.870	0.50	2.000		93.5	49.7	118	1.783	4.76	17.4	
Acenaphthylene	1.748	1.0	2.000		87.4	56.7	120	1.640	6.38	19.5	
Anthracene	1.989	0.050	2.000		99.5	54.4	117	1.909	4.10	24.5	
Benz(a)anthracene	2.169	0.050	2.000		108	52.4	135	2.030	6.61	30.2	
Benzo(a)pyrene	1.923	0.050	2.000		96.1	51.5	117	1.775	7.97	25.6	
Benzo(b)fluoranthene	1.529	0.10	2.000		76.5	45.6	124	1.424	7.14	20.9	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237158

Sample ID: 1701062-005BMSD	Client ID: MW507BR-0117	Units: ug/L			Prep Date: 01/31/2017	Run No: 335506					
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D	BatchID: 237158			Analysis Date: 02/01/2017	Seq No: 7323065					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(g,h,i)perylene	1.591	0.10	2.000		79.6	45.9	120	1.326	18.2	28.6	
Benzo(k)fluoranthene	1.860	0.050	2.000		93.0	51.8	122	1.685	9.91	28.6	
Chrysene	2.109	0.050	2.000		105	59.9	120	1.985	6.03	26.4	
Dibenz(a,h)anthracene	1.322	0.10	2.000		66.1	41.6	120	1.213	8.64	17.8	
Fluoranthene	2.091	0.10	2.000		105	59.7	122	1.996	4.62	22.1	
Fluorene	1.913	0.10	2.000		95.7	57.9	117	1.821	4.95	20.8	
Indeno(1,2,3-cd)pyrene	1.566	0.050	2.000		78.3	45.5	120	1.257	21.9	19.3	R
Naphthalene	1.836	0.50	2.000	0.02475	90.6	53.9	120	1.680	8.88	20.6	
Phenanthrene	1.884	0.050	2.000		94.2	58.1	120	1.828	3.00	19.4	
Pyrene	2.029	0.050	2.000	0.01962	100	61.6	120	1.914	5.83	21.2	
Surr: 4-Terphenyl-d14	1.922	0	2.000		96.1	58.5	125	1.824	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237235**

Sample ID: MB-237235	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335627			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237235				Analysis Date: 02/01/2017	Seq No: 7324504			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.0100									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237235	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335627			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237235				Analysis Date: 02/01/2017	Seq No: 7324505			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1017	0.00500	0.1000		102	80	120				
Arsenic	0.09802	0.00500	0.1000		98.0	80	120				
Barium	0.1002	0.0100	0.1000		100	80	120				
Beryllium	0.09907	0.00100	0.1000		99.1	80	120				
Cadmium	0.1003	0.000700	0.1000		100	80	120				
Chromium	0.09995	0.00500	0.1000		100.0	80	120				
Copper	0.09956	0.00200	0.1000		99.6	80	120				
Lead	0.09950	0.00100	0.1000		99.5	80	120				
Nickel	0.09860	0.00500	0.1000		98.6	80	120				
Selenium	0.09819	0.00500	0.1000		98.2	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237235**

Sample ID: LCS-237235	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335627			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237235				Analysis Date: 02/01/2017	Seq No: 7324505			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.09804	0.00100	0.1000		98.0	80	120				
Vanadium	0.09960	0.00500	0.1000		99.6	80	120				
Zinc	0.1004	0.0100	0.1000		100	80	120				

Sample ID: 1701062-001CMS	Client ID: MW-513BR-0117	Units: mg/L				Prep Date: 01/31/2017	Run No: 335627				
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237235				Analysis Date: 02/01/2017	Seq No: 7324507			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1023	0.00500	0.1000	0.0001770	102	75	125				
Arsenic	0.09741	0.00500	0.1000		97.4	75	125				
Beryllium	0.09960	0.00100	0.1000	0.0002110	99.4	75	125				
Cadmium	0.1001	0.000700	0.1000		100	75	125				
Chromium	0.09409	0.00500	0.1000		94.1	75	125				
Copper	0.09373	0.00200	0.1000		93.7	75	125				
Lead	0.09940	0.00100	0.1000		99.4	75	125				
Nickel	0.09221	0.00500	0.1000	0.0002610	91.9	75	125				
Selenium	0.09880	0.00500	0.1000		98.8	75	125				
Thallium	0.09855	0.00100	0.1000		98.6	75	125				
Vanadium	0.09370	0.00500	0.1000		93.7	75	125				
Zinc	0.09739	0.0100	0.1000		97.4	75	125				

Sample ID: 1701062-001CMS	Client ID: MW-513BR-0117	Units: mg/L				Prep Date: 01/31/2017	Run No: 335627				
SampleType: MS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237235				Analysis Date: 02/03/2017	Seq No: 7326124				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.7403	0.0100	0.1000	0.6373	103	75	125				
--------	--------	--------	--------	--------	-----	----	-----	--	--	--	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237235

Sample ID: 1701O62-001CMSD		Client ID: MW-513BR-0117				Units: mg/L		Prep Date: 01/31/2017		Run No: 335627		
SampleType: MSD		TestCode: Total Metals by ICP/MS SW6020B				BatchID: 237235		Analysis Date: 02/01/2017		Seq No: 7324508		
Analyte		Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1024	0.00500	0.1000	0.0001770	102	75	125	0.1023	0.098	20	
Arsenic	0.09683	0.00500	0.1000		96.8	75	125	0.09741	0.597	20	
Beryllium	0.1009	0.00100	0.1000	0.0002110	101	75	125	0.09960	1.30	20	
Cadmium	0.1006	0.000700	0.1000		101	75	125	0.1001	0.498	20	
Chromium	0.09475	0.00500	0.1000		94.8	75	125	0.09409	0.699	20	
Copper	0.09390	0.00200	0.1000		93.9	75	125	0.09373	0.181	20	
Lead	0.09997	0.00100	0.1000		100.0	75	125	0.09940	0.572	20	
Nickel	0.09276	0.00500	0.1000	0.0002610	92.5	75	125	0.09221	0.595	20	
Selenium	0.09724	0.00500	0.1000		97.2	75	125	0.09880	1.59	20	
Thallium	0.09911	0.00100	0.1000		99.1	75	125	0.09855	0.567	20	
Vanadium	0.09457	0.00500	0.1000		94.6	75	125	0.09370	0.924	20	
Zinc	0.09711	0.0100	0.1000		97.1	75	125	0.09739	0.288	20	

Sample ID: 1701O62-001CMSD	Client ID: MW-513BR-0117	Units: mg/L				Prep Date: 01/31/2017	Run No: 335627				
SampleType: MSD	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237235				Analysis Date: 02/03/2017	Seq No: 7326125				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.7450	0.0100	0.1000	0.6373	108	75	125	0.7403	0.633	20	
--------	--------	--------	--------	--------	-----	----	-----	--------	-------	----	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237239**

Sample ID: MB-237239	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335625			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237239				Analysis Date: 02/01/2017	Seq No: 7324675			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.0100									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237239	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335625			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237239				Analysis Date: 02/01/2017	Seq No: 7324676			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1016	0.00500	0.1000	0.0001810	101	80	120				
Arsenic	0.09906	0.00500	0.1000		99.1	80	120				
Barium	0.1006	0.0100	0.1000		101	80	120				
Beryllium	0.1005	0.00100	0.1000		100	80	120				
Cadmium	0.1007	0.000700	0.1000		101	80	120				
Chromium	0.1003	0.00500	0.1000		100	80	120				
Copper	0.09994	0.00200	0.1000		99.9	80	120				
Lead	0.09967	0.00100	0.1000		99.7	80	120				
Nickel	0.09870	0.00500	0.1000		98.7	80	120				
Selenium	0.09774	0.00500	0.1000		97.7	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237239

Sample ID: LCS-237239	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335625			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237239				Analysis Date: 02/01/2017	Seq No: 7324676			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.09814	0.00100	0.1000		98.1	80	120				
Vanadium	0.1000	0.00500	0.1000		100	80	120				
Zinc	0.1002	0.0100	0.1000		100	80	120				

Sample ID: 1701062-005CMS	Client ID: MW507BR-0117	Units: mg/L				Prep Date: 01/31/2017	Run No: 335625				
SampleType: MS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237239				Analysis Date: 02/01/2017	Seq No: 7324682				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1032	0.00500	0.1000	0.001100	102	75	125				
Arsenic	0.09772	0.00500	0.1000	0.0005400	97.2	75	125				
Barium	0.1743	0.0100	0.1000	0.07284	101	75	125				
Beryllium	0.1020	0.00100	0.1000		102	75	125				
Cadmium	0.1010	0.000700	0.1000	0.0007410	100	75	125				
Chromium	0.09687	0.00500	0.1000	0.0003010	96.6	75	125				
Copper	0.09747	0.00200	0.1000	0.001856	95.6	75	125				
Lead	0.09977	0.00100	0.1000	0.0001990	99.6	75	125				
Nickel	0.09457	0.00500	0.1000	0.0005460	94.0	75	125				
Selenium	0.09888	0.00500	0.1000	0.001559	97.3	75	125				
Thallium	0.09847	0.00100	0.1000		98.5	75	125				
Vanadium	0.09867	0.00500	0.1000	0.002187	96.5	75	125				
Zinc	0.1074	0.0100	0.1000	0.01001	97.4	75	125				

Sample ID: 1701O62-005CMSD	Client ID: MW507BR-0117	Units: mg/L				Prep Date: 01/31/2017	Run No: 335625				
SampleType: MSD	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237239				Analysis Date: 02/01/2017	Seq No: 7324690				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1034	0.00500	0.1000	0.001100	102	75	125	0.1032	0.194	20	
Arsenic	0.09942	0.00500	0.1000	0.0005400	98.9	75	125	0.09772	1.72	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237239

Sample ID: 1701062-005CMSD	Client ID: MW507BR-0117	Units: mg/L			Prep Date: 01/31/2017	Run No: 335625					
SampleType: MSD	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237239			Analysis Date: 02/01/2017	Seq No: 7324690					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.1737	0.0100	0.1000	0.07284	101	75	125	0.1743	0.345	20	
Beryllium	0.1000	0.00100	0.1000		100	75	125	0.1020	1.98	20	
Cadmium	0.1017	0.000700	0.1000	0.0007410	101	75	125	0.1010	0.691	20	
Chromium	0.09797	0.00500	0.1000	0.0003010	97.7	75	125	0.09687	1.13	20	
Copper	0.09774	0.00200	0.1000	0.001856	95.9	75	125	0.09747	0.277	20	
Lead	0.1002	0.00100	0.1000	0.0001990	100	75	125	0.09977	0.430	20	
Nickel	0.09456	0.00500	0.1000	0.0005460	94.0	75	125	0.09457	0.011	20	
Selenium	0.09996	0.00500	0.1000	0.001559	98.4	75	125	0.09888	1.09	20	
Thallium	0.09898	0.00100	0.1000		99.0	75	125	0.09847	0.517	20	
Vanadium	0.09964	0.00500	0.1000	0.002187	97.5	75	125	0.09867	0.978	20	
Zinc	0.1093	0.0100	0.1000	0.01001	99.3	75	125	0.1074	1.75	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237285

Sample ID: MB-237285	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335502			
SampleType: MBLK	TestCode: Cyanide	SW9014					BatchID: 237285	Analysis Date: 01/31/2017	Seq No: 7320743		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237285		Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335502			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320744			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-001DMS		Client ID: MW-513BR-0117				Units: mg/L		Prep Date: 01/31/2017		Run No: 335502	
SampleType: MS		TestCode: Cyanide SW9014				BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320765	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2330 0.010 0.2500 93.2 70 130

Sample ID: 1701O62-001DMSD		Client ID: MW-513BR-0117			Units: mg/L		Prep Date: 01/31/2017		Run No: 335502		
SampleType: MSD		TestCode: Cyanide SW9014			BatchID: 237285		Analysis Date: 01/31/2017		Seq No: 7320769		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2570 0.010 0.2500 103 70 130 0.2330 9.80 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237286

Sample ID: MB-237286	Client ID:					Units: mg/L	Prep Date: 01/31/2017	Run No: 335504			
SampleType: MBLK	TestCode: Cyanide	SW9014				BatchID: 237286	Analysis Date: 01/31/2017	Seq No: 7320805			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237286		Client ID:		Units: mg/L		Prep Date: 01/31/2017		Run No: 335504			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320806			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-003DMS	Client ID: MW-408S-0117	Units: mg/L			Prep Date: 01/31/2017	Run No: 335504					
SampleType: MS	TestCode: Cyanide SW9014	BatchID: 237286			Analysis Date: 01/31/2017	Seq No: 7320832					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.1930 0.010 0.2500 77.2 70 130

Sample ID: 1701O62-003DMSD		Client ID: MW-408S-0117		Units: mg/L		Prep Date: 01/31/2017		Run No: 335504			
SampleType: MSD		TestCode: Cyanide SW9014		BatchID: 237286		Analysis Date: 01/31/2017		Seq No: 7320835			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.1980 0.010 0.2500 79.2 70 130 0.1930 2.56 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237297

Sample ID: MB-237297	Client ID:				Units: mg/L	Prep Date: 02/01/2017	Run No: 335519				
SampleType: MBLK	TestCode: Cyanide SW9014				BatchID: 237297	Analysis Date: 02/01/2017	Seq No: 7321188				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237297		Client ID:			Units: mg/L			Prep Date: 02/01/2017		Run No: 335519	
SampleType: LCS		TestCode: Cyanide SW9014			BatchID: 237297			Analysis Date: 02/01/2017		Seq No: 7321189	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701062-005DMS		Client ID: MW507BR-0117			Units: mg/L		Prep Date: 02/01/2017		Run No: 335519		
SampleType: MS		TestCode: Cyanide SW9014			BatchID: 237297		Analysis Date: 02/01/2017		Seq No: 7321209		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2290 0.010 0.2500 91.6 70 130

Sample ID: 1701062-005DMSD		Client ID: MW507BR-0117			Units: mg/L		Prep Date: 02/01/2017		Run No: 335519		
SampleType: MSD		TestCode: Cyanide SW9014			BatchID: 237297		Analysis Date: 02/01/2017		Seq No: 7321210		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2480 0.010 0.2500 99.2 70 130 0.2290 7.97 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237317**

Sample ID: MB-237317	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MBLK	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325603				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237317	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: LCS	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325604				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005418 0.00020 0.0050 0.00007789 107 80 120

Sample ID: 1701062-001CMS	Client ID: MW-513BR-0117	Units: mg/L			Prep Date: 02/02/2017	Run No: 335656					
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325608					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005075 0.00020 0.0050 0.00007107 100 70 130

Sample ID: 1701062-005CMS	Client ID: MW507BR-0117	Units: mg/L	Prep Date: 02/02/2017	Run No: 335656							
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 237317	Analysis Date: 02/02/2017	Seq No: 7325612							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005283 0.00020 0.0050 106 70 130

Sample ID: 1701063-005CMS	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MS	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325615				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005311 0.00020 0.0050 0.00007798 105 70 130

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O62

ANALYTICAL QC SUMMARY REPORT

BatchID: 237317

Sample ID: 1701O62-001CMSD		Client ID: MW-513BR-0117				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325609	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005126	0.00020	0.0050	0.00007107	101	70	130	0.005075	0.996	20	

Sample ID: 1701O62-005CMSD		Client ID: MW507BR-0117				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325613	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005210	0.00020	0.0050		104	70	130	0.005283	1.40	20	

Sample ID: 1701O63-005CMSD		Client ID:				Units: mg/L		Prep Date: 02/02/2017		Run No: 335656	
SampleType: MSD		TestCode: Mercury, Total SW7470A				BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325616	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005270	0.00020	0.0050	0.00007798	104	70	130	0.005311	0.774	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT

BatchID: 237356

Sample ID: MB-237356	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7324167				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	42.94	0	50.00		85.9	66.1	129				
Surr: Dibromofluoromethane	55.85	0	50.00		112	83.6	123				
Surr: Toluene-d8	47.68	0	50.00		95.4	81.8	118				

Sample ID: LCS-237356	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7324166			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	37.07	5.0	50.00		74.1	74	125				
Toluene	39.48	5.0	50.00		79.0	75.9	126				
Trichloroethene	38.11	5.0	50.00		76.2	70.6	129				
Surr: 4-Bromofluorobenzene	44.00	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.50	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.83	0	50.00		93.7	81.8	118				

Sample ID: 1701062-001AMS	Client ID: MW-513BR-0117	Units: ug/L			Prep Date: 02/02/2017	Run No: 335629					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356			Analysis Date: 02/02/2017	Seq No: 7325487					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	46.85	5.0	50.00		93.7	71.6	132				
---------	-------	-----	-------	--	------	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: 1701062-001AMS	Client ID: MW-513BR-0117	Units: ug/L	Prep Date: 02/02/2017	Run No: 335629							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325487							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	49.98	5.0	50.00		100.0	72.5	135				
Trichloroethene	48.34	5.0	50.00		96.7	70.2	132				
Surr: 4-Bromofluorobenzene	44.02	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.61	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.86	0	50.00		93.7	81.8	118				

Sample ID: 1701062-005AMS	Client ID: MW507BR-0117	Units: ug/L			Prep Date: 02/02/2017	Run No: 335629					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356			Analysis Date: 02/02/2017	Seq No: 7325490					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.40	5.0	50.00		101	71.6	132				
Toluene	53.90	5.0	50.00		108	72.5	135				
Trichloroethene	50.63	5.0	50.00		101	70.2	132				
Surr: 4-Bromofluorobenzene	42.51	0	50.00		85.0	66.1	129				
Surr: Dibromofluoromethane	54.19	0	50.00		108	83.6	123				
Surr: Toluene-d8	46.61	0	50.00		93.2	81.8	118				

Sample ID: 1701063-005AMS	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325507			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.66	5.0	50.00		101	71.6	132				
Toluene	54.38	5.0	50.00		109	72.5	135				
Trichloroethene	51.18	5.0	50.00		102	70.2	132				
Surr: 4-Bromofluorobenzene	44.27	0	50.00		88.5	66.1	129				
Surr: Dibromofluoromethane	57.19	0	50.00		114	83.6	123				
Surr: Toluene-d8	47.85	0	50.00		95.7	81.8	118				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701062

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: 1701O62-001AMSD	Client ID: MW-513BR-0117	Units: ug/L		Prep Date: 02/02/2017	Run No: 335629						
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356		Analysis Date: 02/02/2017	Seq No: 7325488						
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	47.77	5.0	50.00		95.5	71.6	132	46.85	1.94	20.7	
Toluene	51.41	5.0	50.00		103	72.5	135	49.98	2.82	23.2	
Trichloroethene	48.45	5.0	50.00		96.9	70.2	132	48.34	0.227	27.7	
Surr: 4-Bromofluorobenzene	43.44	0	50.00		86.9	66.1	129	44.02	0	0	
Surr: Dibromofluoromethane	53.90	0	50.00		108	83.6	123	53.61	0	0	
Surr: Toluene-d8	46.50	0	50.00		93.0	81.8	118	46.86	0	0	

Sample ID: 1701062-005AMSD	Client ID: MW507BR-0117	Units: ug/L			Prep Date: 02/02/2017	Run No: 335629					
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356			Analysis Date: 02/02/2017	Seq No: 7325491					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	48.80	5.0	50.00		97.6	71.6	132	50.40	3.23	20.7	
Toluene	52.96	5.0	50.00		106	72.5	135	53.90	1.76	23.2	
Trichloroethene	49.16	5.0	50.00		98.3	70.2	132	50.63	2.95	27.7	
Surr: 4-Bromofluorobenzene	43.82	0	50.00		87.6	66.1	129	42.51	0	0	
Surr: Dibromofluoromethane	54.57	0	50.00		109	83.6	123	54.19	0	0	
Surr: Toluene-d8	46.44	0	50.00		92.9	81.8	118	46.61	0	0	

Sample ID: 1701063-005AMSD	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325508			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.53	5.0	50.00		101	71.6	132	50.66	0.257	20.7	
Toluene	55.31	5.0	50.00		111	72.5	135	54.38	1.70	23.2	
Trichloroethene	52.02	5.0	50.00		104	70.2	132	51.18	1.63	27.7	
Surr: 4-Bromofluorobenzene	44.37	0	50.00		88.7	66.1	129	44.27	0	0	
Surr: Dibromofluoromethane	57.13	0	50.00		114	83.6	123	57.19	0	0	
Surr: Toluene-d8	47.55	0	50.00		95.1	81.8	118	47.85	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 06, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1701O63

Analytical Environmental Services, Inc. received 5 samples on 1/28/2017 11:23:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager

174/1063

Table 2-3
Site-Specific Constituents of Interest
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Volatile Organic Compounds (VOCs), (SW-846 Method 8260B)		
Acetone - 50 ug/L	Ethylbenzene - 5 ug/L	Trichloroethylene - 5 ug/L
Benzene - 5 ug/L	Methylene Chloride - 5 ug/L	Xylenes (total) - 5 ug/L
Carbon Disulfide - 5 ug/L	Toluene - 5 ug/L	
Polynuclear Aromatic Hydrocarbons (SIM SW-846 Method 8270D)		
Acenaphthene - 0.5 ug/L	Benzo(g,h,i)perylene - 0.1 ug/L	Indeno(1,2,3-cd)pyrene- 0.05 ug/L
Acenaphthylene - 1 ug/L	Benzo(k)fluoranthene - 0.05 ug/L	Naphthalene- 0.5 ug/L
Anthracene - 0.05 ug/L	Chrysene - 0.05 ug/L	Phenanthrene- 0.05 ug/L
Benzo(a)anthracene - 0.05 ug/L	Dibenzo(a,h)anthracene - 0.1 ug/L	Pyrene- 0.05 ug/L
Benzo(a)pyrene - 0.05 ug/L	Fluoranthene- 0.1 ug/L	
Benzo(b)fluoranthene - 0.1 ug/L	Fluorene- 0.1 ug/L	
Inorganics (SW-846 Methods 6010C, 7470A, 6020, and 9010/9012)		
Antimony -0.006 mg/L	Copper - 0.01 mg/L	Vanadium - 0.01 mg/L
Arsenic - 0.05 mg/L	Lead - 0.01 mg/L	Zinc - 0.02 mg/L
Barium - 0.004 mg/L	Mercury-0.0002 mg/L	
Beryllium - 0.004 mg/L	Nickel - 0.02 mg/L	Cyanide - 0.01 mg/L
Cadmium - 0.005 mg/L	Selenium - 0.02 mg/L	
Chromium - 0.01 mg/L	Thallium - 0.002 mg/L	

DLH 7/19/16

Client: AMEC E&I, Inc. -Kennesaw**Project:** AGL - Augusta**Lab ID:** 1701O63**Case Narrative**

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, sample 1701O63-003A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc

Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O63-001

Client Sample ID: TB-04-0117
 Collection Date: 1/27/2017 8:30:00 AM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 13:34	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 13:34	NP
Surr: 4-Bromofluorobenzene	84	66.1-129		%REC	237356	1	02/02/2017 13:34	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	237356	1	02/02/2017 13:34	NP
Surr: Toluene-d8	94.9	81.8-118		%REC	237356	1	02/02/2017 13:34	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-002

Client Sample ID: MW-401SAP-0117
Collection Date: 1/27/2017 9:52:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 20:33	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Trichloroethene	7.1	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 20:33	NP
Surr: 4-Bromofluorobenzene	85.2	66.1-129		%REC	237356	1	02/02/2017 20:33	NP
Surr: Dibromofluoromethane	121	83.6-123		%REC	237356	1	02/02/2017 20:33	NP
Surr: Toluene-d8	99.1	81.8-118		%REC	237356	1	02/02/2017 20:33	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	02/01/2017 00:25	JS
Arsenic	BRL	0.0500		mg/L	237133	1	02/01/2017 00:25	JS
Barium	0.0813	0.00400		mg/L	237133	1	02/01/2017 00:25	JS
Beryllium	BRL	0.00400		mg/L	237133	1	02/01/2017 00:25	JS
Cadmium	0.0184	0.00500		mg/L	237133	1	02/01/2017 00:25	JS
Chromium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:25	JS
Copper	BRL	0.0100		mg/L	237133	1	02/01/2017 00:25	JS
Lead	BRL	0.0100		mg/L	237133	1	02/01/2017 00:25	JS
Nickel	BRL	0.0200		mg/L	237133	1	02/01/2017 00:25	JS
Selenium	BRL	0.0200		mg/L	237133	1	02/01/2017 00:25	JS
Thallium	BRL	0.00200		mg/L	237133	1	02/01/2017 00:25	JS
Vanadium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:25	JS
Zinc	0.0332	0.0200		mg/L	237133	1	02/02/2017 00:36	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/02/2017 13:59	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/02/2017 13:59	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/02/2017 13:59	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/02/2017 13:59	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/02/2017 13:59	YH
Pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/02/2017 13:59	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O63-002

Client Sample ID: MW-401SAP-0117
 Collection Date: 1/27/2017 9:52:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 13:59	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/02/2017 13:59	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/02/2017 13:59	YH
Surr: 4-Terphenyl-d14	99.2	58.5-125		%REC	237121	1	02/02/2017 13:59	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:58	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-003

Client Sample ID: MW-500BR-0117
Collection Date: 1/27/2017 10:10:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	1000		ug/L	237356	20	02/02/2017 15:30	NP
Benzene	5600	250		ug/L	237356	50	02/02/2017 22:30	NP
Carbon disulfide	BRL	100		ug/L	237356	20	02/02/2017 15:30	NP
Ethylbenzene	680	100		ug/L	237356	20	02/02/2017 15:30	NP
Methylene chloride	BRL	100		ug/L	237356	20	02/02/2017 15:30	NP
Trichloroethene	BRL	100		ug/L	237356	20	02/02/2017 15:30	NP
Toluene	BRL	100		ug/L	237356	20	02/02/2017 15:30	NP
Xylenes, Total	240	100		ug/L	237356	20	02/02/2017 15:30	NP
Surr: 4-Bromofluorobenzene	90.3	66.1-129		%REC	237356	50	02/02/2017 22:30	NP
Surr: 4-Bromofluorobenzene	88.2	66.1-129		%REC	237356	20	02/02/2017 15:30	NP
Surr: Dibromofluoromethane	108	83.6-123		%REC	237356	20	02/02/2017 15:30	NP
Surr: Dibromofluoromethane	110	83.6-123		%REC	237356	50	02/02/2017 22:30	NP
Surr: Toluene-d8	90.9	81.8-118		%REC	237356	50	02/02/2017 22:30	NP
Surr: Toluene-d8	91.3	81.8-118		%REC	237356	20	02/02/2017 15:30	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	02/01/2017 00:31	JS
Arsenic	BRL	0.0500		mg/L	237133	1	02/01/2017 00:31	JS
Barium	0.284	0.00400		mg/L	237133	1	02/01/2017 00:31	JS
Beryllium	BRL	0.00400		mg/L	237133	1	02/01/2017 00:31	JS
Cadmium	0.0124	0.00500		mg/L	237133	1	02/01/2017 00:31	JS
Chromium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:31	JS
Copper	BRL	0.0100		mg/L	237133	1	02/01/2017 00:31	JS
Lead	BRL	0.0100		mg/L	237133	1	02/01/2017 00:31	JS
Nickel	BRL	0.0200		mg/L	237133	1	02/01/2017 00:31	JS
Selenium	BRL	0.0200		mg/L	237133	1	02/01/2017 00:31	JS
Thallium	BRL	0.00200		mg/L	237133	1	02/01/2017 00:31	JS
Vanadium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:31	JS
Zinc	0.0881	0.0200		mg/L	237133	1	02/02/2017 00:42	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	1800	500		ug/L	237121	1000	02/02/2017 18:44	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/02/2017 16:10	YH
Acenaphthene	51	50		ug/L	237121	100	02/02/2017 18:20	YH
Fluorene	9.4	0.10		ug/L	237121	1	02/02/2017 16:10	YH
Phenanthrene	6.9	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Anthracene	0.99	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Fluoranthene	0.32	0.10		ug/L	237121	1	02/02/2017 16:10	YH
Pyrene	0.38	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/02/2017 16:10	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1701O63-003

Client Sample ID: MW-500BR-0117
 Collection Date: 1/27/2017 10:10:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/02/2017 16:10	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 16:10	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/02/2017 16:10	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/02/2017 16:10	YH
Surr: 4-Terphenyl-d14	158	58.5-125	S	%REC	237121	1	02/02/2017 16:10	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 17:00	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-004

Client Sample ID: MW-319-0117
Collection Date: 1/27/2017 11:38:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 20:56	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 20:56	NP
Surr: 4-Bromofluorobenzene	84.2	66.1-129		%REC	237356	1	02/02/2017 20:56	NP
Surr: Dibromofluoromethane	115	83.6-123		%REC	237356	1	02/02/2017 20:56	NP
Surr: Toluene-d8	95.8	81.8-118		%REC	237356	1	02/02/2017 20:56	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	02/01/2017 00:37	JS
Arsenic	BRL	0.0500		mg/L	237133	1	02/01/2017 00:37	JS
Barium	0.576	0.00400		mg/L	237133	1	02/01/2017 00:37	JS
Beryllium	BRL	0.00400		mg/L	237133	1	02/01/2017 00:37	JS
Cadmium	BRL	0.00500		mg/L	237133	1	02/01/2017 00:37	JS
Chromium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:37	JS
Copper	BRL	0.0100		mg/L	237133	1	02/01/2017 00:37	JS
Lead	BRL	0.0100		mg/L	237133	1	02/01/2017 00:37	JS
Nickel	BRL	0.0200		mg/L	237133	1	02/01/2017 00:37	JS
Selenium	BRL	0.0200		mg/L	237133	1	02/01/2017 00:37	JS
Thallium	BRL	0.00200		mg/L	237133	1	02/01/2017 00:37	JS
Vanadium	BRL	0.0100		mg/L	237133	1	02/01/2017 00:37	JS
Zinc	BRL	0.0200		mg/L	237133	1	02/01/2017 00:37	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/02/2017 16:36	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/02/2017 16:36	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/02/2017 16:36	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/02/2017 16:36	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/02/2017 16:36	YH
Pyrene	3.3	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/02/2017 16:36	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-004

Client Sample ID: MW-319-0117
Collection Date: 1/27/2017 11:38:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/02/2017 16:36	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/02/2017 16:36	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/02/2017 16:36	YH
Surr: 4-Terphenyl-d14	249	58.5-125	S	%REC	237121	1	02/02/2017 16:36	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 17:02	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237297	1	02/01/2017 08:45	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-005

Client Sample ID: MW-320-0117
Collection Date: 1/27/2017 9:13:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 18:37	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 18:37	NP
Surr: 4-Bromofluorobenzene	84.6	66.1-129		%REC	237356	1	02/02/2017 18:37	NP
Surr: Dibromofluoromethane	113	83.6-123		%REC	237356	1	02/02/2017 18:37	NP
Surr: Toluene-d8	97	81.8-118		%REC	237356	1	02/02/2017 18:37	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237133	1	01/31/2017 21:37	JS
Arsenic	BRL	0.0500		mg/L	237133	1	01/31/2017 21:37	JS
Barium	0.238	0.00400		mg/L	237133	1	01/31/2017 21:37	JS
Beryllium	BRL	0.00400		mg/L	237133	1	01/31/2017 21:37	JS
Cadmium	BRL	0.00500		mg/L	237133	1	01/31/2017 21:37	JS
Chromium	BRL	0.0100		mg/L	237133	1	01/31/2017 21:37	JS
Copper	BRL	0.0100		mg/L	237133	1	01/31/2017 21:37	JS
Lead	BRL	0.0100		mg/L	237133	1	01/31/2017 21:37	JS
Nickel	BRL	0.0200		mg/L	237133	1	01/31/2017 21:37	JS
Selenium	BRL	0.0200		mg/L	237133	1	01/31/2017 21:37	JS
Thallium	BRL	0.00200		mg/L	237133	1	01/31/2017 21:37	JS
Vanadium	BRL	0.0100		mg/L	237133	1	01/31/2017 21:37	JS
Zinc	BRL	0.0200		mg/L	237133	1	01/31/2017 21:37	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237121	1	02/01/2017 17:35	YH
Acenaphthylene	BRL	1.0		ug/L	237121	1	02/01/2017 17:35	YH
Acenaphthene	BRL	0.50		ug/L	237121	1	02/01/2017 17:35	YH
Fluorene	BRL	0.10		ug/L	237121	1	02/01/2017 17:35	YH
Phenanthrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 17:35	YH
Pyrene	0.051	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Benz(a)anthracene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Chrysene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Benzo(b)fluoranthene	BRL	0.10		ug/L	237121	1	02/01/2017 17:35	YH
Benzo(k)fluoranthene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Benzo(a)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 6-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1701O63-005

Client Sample ID: MW-320-0117
Collection Date: 1/27/2017 9:13:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons		SW8270D			(SW3510C)			
Indeno(1,2,3-cd)pyrene	BRL	0.050		ug/L	237121	1	02/01/2017 17:35	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237121	1	02/01/2017 17:35	YH
Benzo(g,h,i)perylene	BRL	0.10		ug/L	237121	1	02/01/2017 17:35	YH
Surr: 4-Terphenyl-d14	96.1	58.5-125		%REC	237121	1	02/01/2017 17:35	YH
Mercury, Total		SW7470A			(SW7470A)			
Mercury	BRL	0.00020		mg/L	237317	1	02/02/2017 16:19	JR
Cyanide		SW9014			(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237299	1	02/01/2017 08:45	BD

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-401SAP-0117				Lab ID: 1701O63-002			
Collection Date: 1/27/2017 9:52:00 AM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Trichloroethene	7.1		0.35	5.0	ug/L	237356	1
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	81.3		0.180	4.00	ug/L	237133	1
Cadmium	18.4		0.184	5.00	ug/L	237133	1
Zinc	33.2		3.92	20.0	ug/L	237133	1
Client Sample ID: MW-500BR-0117				Lab ID: 1701O63-003			
Collection Date: 1/27/2017 10:10:00 AM				Matrix: Groundwater			
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)			
Benzene	5600		6.8	250	ug/L	237356	50
Ethylbenzene	680		4.1	100	ug/L	237356	20
Xylenes, Total	240		6.0	100	ug/L	237356	20
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	284		0.180	4.00	ug/L	237133	1
Cadmium	12.4		0.184	5.00	ug/L	237133	1
Zinc	88.1		3.92	20.0	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Naphthalene	1800		7.2	500	ug/L	237121	1000
Acenaphthene	51		1.7	50	ug/L	237121	100
Fluorene	9.4		0.019	0.10	ug/L	237121	1
Phenanthrene	6.9		0.022	0.050	ug/L	237121	1
Anthracene	0.99		0.026	0.050	ug/L	237121	1
Fluoranthene	0.32		0.016	0.10	ug/L	237121	1
Pyrene	0.38		0.015	0.050	ug/L	237121	1
Client Sample ID: MW-319-0117				Lab ID: 1701O63-004			
Collection Date: 1/27/2017 11:38:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	576		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Pyrene	3.3		0.015	0.050	ug/L	237121	1
Client Sample ID: MW-320-0117				Lab ID: 1701O63-005			
Collection Date: 1/27/2017 9:13:00 AM				Matrix: Groundwater			
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	238		0.180	4.00	ug/L	237133	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Pyrene	0.051		0.015	0.050	ug/L	237121	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC/Kennecott

Work Order Number 1741043

Checklist completed by Muhammadur 1/28/2017
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 2.9°C Cooler #2 1.6°C Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by MP

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Receipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab Order: 1701O63

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701O63-001A	TB-04-0117	1/27/2017 8:30:00AM	Aqueous	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00 PM	02/02/2017
1701O63-002A	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00 PM	02/02/2017
1701O63-002B	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00 PM	02/02/2017
1701O63-002C	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	02/01/2017
1701O63-002C	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	02/02/2017
1701O63-002C	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00 AM	02/02/2017
1701O63-002D	MW-401SAP-0117	1/27/2017 9:52:00AM	Groundwater	Cyanide		2/1/2017 8:45:00 AM	02/01/2017
1701O63-003A	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00 PM	02/02/2017
1701O63-003B	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00 PM	02/02/2017
1701O63-003C	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	02/01/2017
1701O63-003C	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	02/02/2017
1701O63-003C	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00 AM	02/02/2017
1701O63-003D	MW-500BR-0117	1/27/2017 10:10:00AM	Groundwater	Cyanide		2/1/2017 8:45:00 AM	02/01/2017
1701O63-004A	MW-319-0117	1/27/2017 11:38:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00 PM	02/02/2017
1701O63-004B	MW-319-0117	1/27/2017 11:38:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00 PM	02/02/2017
1701O63-004C	MW-319-0117	1/27/2017 11:38:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	02/01/2017
1701O63-004C	MW-319-0117	1/27/2017 11:38:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00 AM	02/02/2017
1701O63-004D	MW-319-0117	1/27/2017 11:38:00AM	Groundwater	Cyanide		2/1/2017 8:45:00 AM	02/01/2017
1701O63-005A	MW-320-0117	1/27/2017 9:13:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00 PM	02/02/2017
1701O63-005B	MW-320-0117	1/27/2017 9:13:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		1/30/2017 12:00:00 PM	02/01/2017
1701O63-005C	MW-320-0117	1/27/2017 9:13:00AM	Groundwater	Total Metals by ICP/MS		1/30/2017 1:53:00 PM	01/31/2017
1701O63-005C	MW-320-0117	1/27/2017 9:13:00AM	Groundwater	TOTAL MERCURY		2/2/2017 10:51:00 AM	02/02/2017
1701O63-005D	MW-320-0117	1/27/2017 9:13:00AM	Groundwater	Cyanide		2/1/2017 8:45:00 AM	02/01/2017

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O63

ANALYTICAL QC SUMMARY REPORT

BatchID: 237121

Sample ID: MB-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons	SW8270D	BatchID: 237121				Analysis Date: 01/31/2017	Seq No: 7318485			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.260	0	2.000		113	58.5	125				

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	2.054	0.50	2.000		103	69.1	117				
Acenaphthylene	1.918	1.0	2.000		95.9	59.7	118				
Anthracene	2.195	0.050	2.000		110	64.7	121				
Benz(a)anthracene	2.412	0.050	2.000		121	61.7	139				
Benzo(a)pyrene	2.381	0.050	2.000		119	65.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: LCS-237121	Client ID:					Units: ug/L	Prep Date: 01/30/2017	Run No: 335417			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237121	Analysis Date: 01/31/2017	Seq No: 7318486			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(b)fluoranthene	1.914	0.10	2.000		95.7	60.8	129				
Benzo(g,h,i)perylene	2.016	0.10	2.000		101	60.1	129				
Benzo(k)fluoranthene	2.170	0.050	2.000		108	69.6	130				
Chrysene	2.319	0.050	2.000		116	76.5	127				
Dibenz(a,h)anthracene	1.805	0.10	2.000		90.2	55.2	126				
Fluoranthene	2.181	0.10	2.000		109	66.5	133				
Fluorene	2.082	0.10	2.000		104	66.1	122				
Indeno(1,2,3-cd)pyrene	1.974	0.050	2.000		98.7	58.8	132				
Naphthalene	1.956	0.50	2.000	0.04156	95.7	60.6	120				
Phenanthrene	2.065	0.050	2.000		103	65.9	118				
Pyrene	2.257	0.050	2.000		113	70.2	129				
Surr: 4-Terphenyl-d14	2.078	0	2.000		104	58.5	125				

Sample ID: 1701063-005BMS	Client ID: MW-320-0117				Units: ug/L	Prep Date: 01/30/2017	Run No: 335506				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323058				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.811	0.50	2.000		90.6	49.7	118				
Acenaphthylene	1.683	1.0	2.000		84.1	56.7	120				
Anthracene	1.980	0.050	2.000		99.0	54.4	117				
Benz(a)anthracene	2.177	0.050	2.000		109	52.4	135				
Benzo(a)pyrene	1.914	0.050	2.000		95.7	51.5	117				
Benzo(b)fluoranthene	1.625	0.10	2.000	0.02680	79.9	45.6	124				
Benzo(g,h,i)perylene	1.280	0.10	2.000	0.02508	62.7	45.9	120				
Benzo(k)fluoranthene	1.708	0.050	2.000		85.4	51.8	122				
Chrysene	2.066	0.050	2.000	0.02246	102	59.9	120				
Dibenz(a,h)anthracene	1.058	0.10	2.000		52.9	41.6	120				
Fluoranthene	2.080	0.10	2.000	0.04902	102	59.7	122				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT**BatchID: 237121**

Sample ID: 1701063-005BMS	Client ID: MW-320-0117	Units: ug/L				Prep Date: 01/30/2017	Run No: 335506				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D	BatchID: 237121				Analysis Date: 02/01/2017	Seq No: 7323058				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fluorene	1.837	0.10	2.000		91.8	57.9	117				
Indeno(1,2,3-cd)pyrene	1.380	0.050	2.000		69.0	45.5	120				
Naphthalene	1.767	0.50	2.000		88.3	53.9	120				
Phenanthrene	1.887	0.050	2.000	0.02576	93.0	58.1	120				
Pyrene	2.022	0.050	2.000	0.05133	98.5	61.6	120				
Surr: 4-Terphenyl-d14	1.800	0	2.000		90.0	58.5	125				

Sample ID: 1701063-005BMSD	Client ID: MW-320-0117				Units: ug/L	Prep Date: 01/30/2017	Run No: 335506				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237121	Analysis Date: 02/01/2017	Seq No: 7323059				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.820	0.50	2.000		91.0	49.7	118	1.811	0.496	17.4	
Acenaphthylene	1.694	1.0	2.000		84.7	56.7	120	1.683	0.638	19.5	
Anthracene	2.066	0.050	2.000		103	54.4	117	1.980	4.25	24.5	
Benz(a)anthracene	2.288	0.050	2.000		114	52.4	135	2.177	4.97	30.2	
Benzo(a)pyrene	1.883	0.050	2.000		94.2	51.5	117	1.914	1.59	25.6	
Benzo(b)fluoranthene	1.670	0.10	2.000	0.02680	82.2	45.6	124	1.625	2.70	20.9	
Benzo(g,h,i)perylene	1.166	0.10	2.000	0.02508	57.1	45.9	120	1.280	9.28	28.6	
Benzo(k)fluoranthene	1.676	0.050	2.000		83.8	51.8	122	1.708	1.91	28.6	
Chrysene	2.092	0.050	2.000	0.02246	103	59.9	120	2.066	1.26	26.4	
Dibenz(a,h)anthracene	0.9449	0.10	2.000		47.2	41.6	120	1.058	11.3	17.8	
Fluoranthene	2.204	0.10	2.000	0.04902	108	59.7	122	2.080	5.78	22.1	
Fluorene	1.842	0.10	2.000		92.1	57.9	117	1.837	0.292	20.8	
Indeno(1,2,3-cd)pyrene	1.188	0.050	2.000		59.4	45.5	120	1.380	15.0	19.3	
Naphthalene	1.743	0.50	2.000		87.2	53.9	120	1.767	1.35	20.6	
Phenanthrene	1.944	0.050	2.000	0.02576	95.9	58.1	120	1.887	2.99	19.4	
Pyrene	2.107	0.050	2.000	0.05133	103	61.6	120	2.022	4.10	21.2	
Surr: 4-Terphenyl-d14	1.837	0	2.000		91.9	58.5	125	1.800	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O63

ANALYTICAL QC SUMMARY REPORT

BatchID: 237121

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701O63

ANALYTICAL QC SUMMARY REPORT

BatchID: 237133

Sample ID: MB-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017		Run No: 335541		
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B				BatchID: 237133	Analysis Date: 01/31/2017		Seq No: 7321638		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321639			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	0.09300	0.00500	0.1000		93.0	80	120				
Arsenic	0.09284	0.00500	0.1000		92.8	80	120				
Barium	0.09186	0.0100	0.1000		91.9	80	120				
Beryllium	0.09396	0.00100	0.1000		94.0	80	120				
Cadmium	0.09290	0.000700	0.1000		92.9	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237133

Sample ID: LCS-237133	Client ID:					Units: mg/L	Prep Date: 01/30/2017	Run No: 335541			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321639			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium	0.09266	0.00500	0.1000	0.0007820	91.9	80	120				
Copper	0.09265	0.00200	0.1000		92.6	80	120				
Lead	0.09033	0.00100	0.1000		90.3	80	120				
Nickel	0.09248	0.00500	0.1000	0.0002820	92.2	80	120				
Selenium	0.09380	0.00500	0.1000		93.8	80	120				
Thallium	0.08539	0.00100	0.1000		85.4	80	120				
Vanadium	0.08976	0.00500	0.1000		89.8	80	120				
Zinc	0.09343	0.0100	0.1000		93.4	80	120				

Sample ID: 1701063-005CMS	Client ID: MW-320-0117	Units: mg/L				Prep Date: 01/30/2017	Run No: 335541				
SampleType: MS	TestCode: Total Metals by ICP/MS SW6020B	BatchID: 237133				Analysis Date: 01/31/2017	Seq No: 7321641				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09411	0.00500	0.1000	0.0002910	93.8	75	125				
Arsenic	0.09034	0.00500	0.1000		90.3	75	125				
Barium	0.3309	0.0100	0.1000	0.2380	92.9	75	125				
Beryllium	0.09575	0.00100	0.1000		95.8	75	125				
Cadmium	0.09372	0.000700	0.1000		93.7	75	125				
Chromium	0.08828	0.00500	0.1000	0.001352	86.9	75	125				
Copper	0.08901	0.00200	0.1000	0.0009280	88.1	75	125				
Lead	0.09144	0.00100	0.1000	0.0005480	90.9	75	125				
Nickel	0.08784	0.00500	0.1000	0.001053	86.8	75	125				
Selenium	0.09289	0.00500	0.1000		92.9	75	125				
Thallium	0.08636	0.00100	0.1000	0.0002800	86.1	75	125				
Vanadium	0.08224	0.00500	0.1000		82.2	75	125				
Zinc	0.09824	0.0100	0.1000	0.01793	80.3	75	125				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237133

Sample ID: 1701063-005CMSD		Client ID: MW-320-0117				Units: mg/L		Prep Date: 01/30/2017		Run No: 335541	
SampleType: MSD		TestCode: Total Metals by ICP/MS		SW6020B		BatchID: 237133		Analysis Date: 01/31/2017		Seq No: 7321642	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	0.09251	0.00500	0.1000	0.0002910	92.2	75	125	0.09411	1.71	20	
Arsenic	0.08991	0.00500	0.1000		89.9	75	125	0.09034	0.477	20	
Barium	0.3296	0.0100	0.1000	0.2380	91.6	75	125	0.3309	0.394	20	
Beryllium	0.09294	0.00100	0.1000		92.9	75	125	0.09575	2.98	20	
Cadmium	0.09183	0.000700	0.1000		91.8	75	125	0.09372	2.04	20	
Chromium	0.08720	0.00500	0.1000	0.001352	85.8	75	125	0.08828	1.23	20	
Copper	0.08782	0.00200	0.1000	0.0009280	86.9	75	125	0.08901	1.35	20	
Lead	0.08959	0.00100	0.1000	0.0005480	89.0	75	125	0.09144	2.04	20	
Nickel	0.08666	0.00500	0.1000	0.001053	85.6	75	125	0.08784	1.35	20	
Selenium	0.09117	0.00500	0.1000		91.2	75	125	0.09289	1.87	20	
Thallium	0.08503	0.00100	0.1000	0.0002800	84.8	75	125	0.08636	1.55	20	
Vanadium	0.08146	0.00500	0.1000		81.5	75	125	0.08224	0.953	20	
Zinc	0.1020	0.0100	0.1000	0.01793	84.1	75	125	0.09824	3.76	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237297

Sample ID: MB-237297	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335519			
SampleType: MBLK	TestCode: Cyanide SW9014					BatchID: 237297	Analysis Date: 02/01/2017	Seq No: 7321188			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237297	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335519			
SampleType: LCS	TestCode: Cyanide SW9014					BatchID: 237297	Analysis Date: 02/01/2017	Seq No: 7321189			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O62-005DMS	Client ID:	Units: mg/L	Prep Date: 02/01/2017	Run No: 335519							
SampleType: MS	TestCode: Cyanide SW9014	BatchID: 237297	Analysis Date: 02/01/2017	Seq No: 7321209							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2290 0.010 0.2500 91.6 70 130

Sample ID: 1701062-005DMSD	Client ID:	Units: mg/L	Prep Date: 02/01/2017	Run No: 335519							
SampleType: MSD	TestCode: Cyanide SW9014	BatchID: 237297	Analysis Date: 02/01/2017	Seq No: 7321210							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2480 0.010 0.2500 99.2 70 130 0.2290 7.97 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237299

Sample ID: MB-237299	Client ID:					Units: mg/L	Prep Date: 02/01/2017	Run No: 335520			
SampleType: MBLK	TestCode: Cyanide	SW9014	BatchID: 237299				Analysis Date: 02/01/2017	Seq No: 7321225			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237299		Client ID:		Units: mg/L		Prep Date: 02/01/2017		Run No: 335520			
SampleType: LCS		TestCode: Cyanide SW9014		BatchID: 237299		Analysis Date: 02/01/2017		Seq No: 7321226			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2740 0.010 0.2500 110 85 115

Sample ID: 1701O63-005DMS	Client ID: MW-320-0117	Units: mg/L	Prep Date: 02/01/2017	Run No: 335520							
SampleType: MS	TestCode: Cyanide SW9014	BatchID: 237299	Analysis Date: 02/01/2017	Seq No: 7321228							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2290 0.010 0.2500 91.6 70 130

Sample ID: 1701063-005DMSD		Client ID: MW-320-0117		Units: mg/L		Prep Date: 02/01/2017		Run No: 335520			
SampleType: MSD		TestCode: Cyanide SW9014		BatchID: 237299		Analysis Date: 02/01/2017		Seq No: 7321233			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2280 0.010 0.2500 91.2 70 130 0.2290 0.438 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237317

Sample ID: MB-237317	Client ID:					Units: mg/L	Prep Date: 02/02/2017	Run No: 335656			
SampleType: MBLK	TestCode: Mercury, Total	SW7470A	BatchID: 237317				Analysis Date: 02/02/2017	Seq No: 7325603			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237317	Client ID:					Units: mg/L	Prep Date: 02/02/2017	Run No: 335656			
SampleType: LCS	TestCode: Mercury, Total	SW7470A	BatchID: 237317				Analysis Date: 02/02/2017	Seq No: 7325604			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005418 0.00020 0.0050 0.00007789 107 80 120

Sample ID: 1701062-001CMS		Client ID:		Units: mg/L		Prep Date: 02/02/2017		Run No: 335656			
SampleType: MS		TestCode: Mercury, Total SW7470A		BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325608			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005075 0.00020 0.0050 0.00007107 100 70 130

Sample ID: 1701O62-005CMS		Client ID:		Units: mg/L		Prep Date: 02/02/2017		Run No: 335656			
SampleType: MS		TestCode: Mercury, Total SW7470A		BatchID: 237317		Analysis Date: 02/02/2017		Seq No: 7325612			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005283 0.00020 0.0050 106 70 130

Sample ID: 1701O63-005CMS	Client ID: MW-320-0117				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MS	TestCode: Mercury, Total SW7470A				BatchID: 237317	Analysis Date: 02/02/2017	Seq No: 7325615				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005311 0.00020 0.0050 0.00007798 105 70 130

Qualifiers:

- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit

- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix

- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O63

ANALYTICAL QC SUMMARY REPORT

BatchID: 237317

Sample ID: 1701O62-001CMSD	Client ID:				Units: mg/L	Prep Date: 02/02/2017	Run No: 335656				
SampleType: MSD	TestCode: Mercury, Total	SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325609				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury	0.005126	0.00020	0.0050	0.00007107	101	70	130	0.005075	0.996	20	
---------	----------	---------	--------	------------	-----	----	-----	----------	-------	----	--

Sample ID: 1701O62-005CMSD	Client ID:	Units: mg/L			Prep Date: 02/02/2017	Run No: 335656					
SampleType: MSD	TestCode: Mercury, Total SW7470A	BatchID: 237317			Analysis Date: 02/02/2017	Seq No: 7325613					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury	0.005210	0.00020	0.0050		104	70	130	0.005283	1.40	20	
---------	----------	---------	--------	--	-----	----	-----	----------	------	----	--

Sample ID: 1701O63-005CMSD	Client ID: MW-320-0117	Units: mg/L	Prep Date: 02/02/2017	Run No: 335656							
SampleType: MSD	TestCode: Mercury, Total SW7470A	BatchID: 237317	Analysis Date: 02/02/2017	Seq No: 7325616							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury	0.005270	0.00020	0.0050	0.00007798	104	70	130	0.005311	0.774	20	
---------	----------	---------	--------	------------	-----	----	-----	----------	-------	----	--

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT

BatchID: 237356

Sample ID: MB-237356	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7324167				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	42.94	0	50.00		85.9	66.1	129				
Surr: Dibromofluoromethane	55.85	0	50.00		112	83.6	123				
Surr: Toluene-d8	47.68	0	50.00		95.4	81.8	118				

Sample ID: LCS-237356	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7324166				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	37.07	5.0	50.00		74.1	74	125				
Toluene	39.48	5.0	50.00		79.0	75.9	126				
Trichloroethene	38.11	5.0	50.00		76.2	70.6	129				
Surr: 4-Bromofluorobenzene	44.00	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.50	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.83	0	50.00		93.7	81.8	118				

Sample ID: 1701062-001AMS	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325487			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	46.85	5.0	50.00		93.7	71.6	132				
---------	-------	-----	-------	--	------	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701063

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: 1701062-001AMS	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325487			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	49.98	5.0	50.00		100.0	72.5	135				
Trichloroethene	48.34	5.0	50.00		96.7	70.2	132				
Surr: 4-Bromofluorobenzene	44.02	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.61	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.86	0	50.00		93.7	81.8	118				

Sample ID: 1701062-005AMS	Client ID:				Units: ug/L	Prep Date: 02/02/2017	Run No: 335629				
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325490				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.40	5.0	50.00		101	71.6	132				
Toluene	53.90	5.0	50.00		108	72.5	135				
Trichloroethene	50.63	5.0	50.00		101	70.2	132				
Surr: 4-Bromofluorobenzene	42.51	0	50.00		85.0	66.1	129				
Surr: Dibromofluoromethane	54.19	0	50.00		108	83.6	123				
Surr: Toluene-d8	46.61	0	50.00		93.2	81.8	118				

Sample ID: 1701063-005AMS	Client ID: MW-320-0117	Units: ug/L			Prep Date: 02/02/2017	Run No: 335629					
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356			Analysis Date: 02/02/2017	Seq No: 7325507					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.66	5.0	50.00		101	71.6	132				
Toluene	54.38	5.0	50.00		109	72.5	135				
Trichloroethene	51.18	5.0	50.00		102	70.2	132				
Surr: 4-Bromofluorobenzene	44.27	0	50.00		88.5	66.1	129				
Surr: Dibromofluoromethane	57.19	0	50.00		114	83.6	123				
Surr: Toluene-d8	47.85	0	50.00		95.7	81.8	118				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1701O63

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: 1701O62-001AMSD	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7325488				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	47.77	5.0	50.00		95.5	71.6	132	46.85	1.94	20.7	
Toluene	51.41	5.0	50.00		103	72.5	135	49.98	2.82	23.2	
Trichloroethene	48.45	5.0	50.00		96.9	70.2	132	48.34	0.227	27.7	
Surr: 4-Bromofluorobenzene	43.44	0	50.00		86.9	66.1	129	44.02	0	0	
Surr: Dibromofluoromethane	53.90	0	50.00		108	83.6	123	53.61	0	0	
Surr: Toluene-d8	46.50	0	50.00		93.0	81.8	118	46.86	0	0	

Sample ID: 1701O62-005AMSD	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325491			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	48.80	5.0	50.00		97.6	71.6	132	50.40	3.23	20.7	
Toluene	52.96	5.0	50.00		106	72.5	135	53.90	1.76	23.2	
Trichloroethene	49.16	5.0	50.00		98.3	70.2	132	50.63	2.95	27.7	
Surr: 4-Bromofluorobenzene	43.82	0	50.00		87.6	66.1	129	42.51	0	0	
Surr: Dibromofluoromethane	54.57	0	50.00		109	83.6	123	54.19	0	0	
Surr: Toluene-d8	46.44	0	50.00		92.9	81.8	118	46.61	0	0	

Sample ID: 1701O63-005AMSD	Client ID: MW-320-0117	Units: ug/L			Prep Date: 02/02/2017	Run No: 335629					
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356			Analysis Date: 02/02/2017	Seq No: 7325508					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.53	5.0	50.00		101	71.6	132	50.66	0.257	20.7	
Toluene	55.31	5.0	50.00		111	72.5	135	54.38	1.70	23.2	
Trichloroethene	52.02	5.0	50.00		104	70.2	132	51.18	1.63	27.7	
Surr: 4-Bromofluorobenzene	44.37	0	50.00		88.7	66.1	129	44.27	0	0	
Surr: Dibromofluoromethane	57.13	0	50.00		114	83.6	123	57.19	0	0	
Surr: Toluene-d8	47.55	0	50.00		95.1	81.8	118	47.85	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 09, 2017

John Quinn
AMEC E&I, Inc. -Kennesaw
1075 Big Shanty Rd NW
Kennesaw GA 30144

TEL: (770) 421-3444
FAX:

RE: AGL - Augusta

Dear John Quinn:

Order No: 1702054

Analytical Environmental Services, Inc. received 1 samples on 2/1/2017 11:52:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

Work Order: 1702054

3680 Drive
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Date: 1-31-17 Page 1 of 1

COMPANY: Amer Foster Wheeler		ADDRESS: 1075 Bigshanty Rd. Ste. 100 Kennesaw, GA 30144		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers				
PHONE: 770-421-3400		FAX: 770-421-3486		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> VOCs 9260 PAHs 9270C HEAVY METALS 6020 7470A CN 9014 </div> </div>																
SAMPLED BY: Jeff Moore		SIGNATURE: <i>Jeff Moore</i>		PRESERVATION (See codes)										REMARKS						
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)														
		DATE	TIME				H	H	N	NO										
1	mw-308BR-0117	1-31-17	10:05	✓		GW	2	2	1	1										
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: <i>Jeff Moore</i>		2-1-17 11:56	1: <i>John Quinn</i>	2/1/17 11:52am	PROJECT NAME: AGL Augusta		Total # of Containers	
2:			2:		PROJECT #: 6122150235		<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other _____	
3:			3:		SITE ADDRESS: Augusta, GA			
					SEND REPORT TO: John Quinn			
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD		INVOICE TO:		STATE PROGRAM (if any):	
			OUT / / VIA:		(IF DIFFERENT FROM ABOVE)		E-mail? <input checked="" type="radio"/> Y / <input type="radio"/> N; Fax? Y / N	
			IN / / VIA:				DATA PACKAGE: I II III IV	
			<input checked="" type="radio"/> CLIENT <input type="radio"/> FedEx <input type="radio"/> UPS <input type="radio"/> MAIL <input type="radio"/> COURIER <input type="radio"/> GREYHOUND <input type="radio"/> OTHER _____		QUOTE #:		PO#:	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc
Date: 9-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab ID: 1702054-001

Client Sample ID: MW-308BR-0117
Collection Date: 1/31/2017 10:05:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Acetone	BRL	50		ug/L	237356	1	02/02/2017 21:20	NP
Benzene	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Carbon disulfide	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Ethylbenzene	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Methylene chloride	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Trichloroethene	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Toluene	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Xylenes, Total	BRL	5.0		ug/L	237356	1	02/02/2017 21:20	NP
Surr: 4-Bromofluorobenzene	82.2	66.1-129		%REC	237356	1	02/02/2017 21:20	NP
Surr: Dibromofluoromethane	117	83.6-123		%REC	237356	1	02/02/2017 21:20	NP
Surr: Toluene-d8	96.9	81.8-118		%REC	237356	1	02/02/2017 21:20	NP
Total Metals by ICP/MS SW6020B				(SW3005A)				
Antimony	BRL	0.00600		mg/L	237472	1	02/08/2017 05:30	JS
Arsenic	BRL	0.0500		mg/L	237472	1	02/08/2017 05:30	JS
Barium	0.0727	0.00400		mg/L	237472	1	02/08/2017 05:30	JS
Beryllium	BRL	0.00400		mg/L	237472	1	02/08/2017 05:30	JS
Cadmium	BRL	0.00500		mg/L	237472	1	02/08/2017 05:30	JS
Chromium	BRL	0.0100		mg/L	237472	1	02/08/2017 05:30	JS
Copper	BRL	0.0100		mg/L	237472	1	02/08/2017 05:30	JS
Lead	BRL	0.0100		mg/L	237472	1	02/08/2017 05:30	JS
Nickel	BRL	0.0200		mg/L	237472	1	02/08/2017 05:30	JS
Selenium	BRL	0.0200		mg/L	237472	1	02/08/2017 05:30	JS
Thallium	BRL	0.00200		mg/L	237472	1	02/08/2017 05:30	JS
Vanadium	BRL	0.0100		mg/L	237472	1	02/08/2017 05:30	JS
Zinc	0.0368	0.0200		mg/L	237472	1	02/08/2017 05:30	JS
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)				
Naphthalene	BRL	0.50		ug/L	237435	1	02/06/2017 16:05	YH
Acenaphthylene	1.3	1.0		ug/L	237435	1	02/06/2017 16:05	YH
Acenaphthene	BRL	0.50		ug/L	237435	1	02/06/2017 16:05	YH
Fluorene	0.17	0.10		ug/L	237435	1	02/06/2017 16:05	YH
Phenanthrene	0.81	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Anthracene	0.38	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Fluoranthene	1.8	0.10		ug/L	237435	1	02/06/2017 16:05	YH
Pyrene	2.7	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Benz(a)anthracene	1.5	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Chrysene	1.4	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Benzo(b)fluoranthene	1.2	0.10		ug/L	237435	1	02/06/2017 16:05	YH
Benzo(k)fluoranthene	0.56	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Benzo(a)pyrene	1.5	0.050		ug/L	237435	1	02/06/2017 16:05	YH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 9-Feb-17

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Lab ID: 1702054-001

Client Sample ID: MW-308BR-0117
 Collection Date: 1/31/2017 10:05:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
SIM Polynuclear Aromatic Hydrocarbons	SW8270D				(SW3510C)			
Indeno(1,2,3-cd)pyrene	0.50	0.050		ug/L	237435	1	02/06/2017 16:05	YH
Dibenz(a,h)anthracene	BRL	0.10		ug/L	237435	1	02/06/2017 16:05	YH
Benzo(g,h,i)perylene	0.62	0.10		ug/L	237435	1	02/06/2017 16:05	YH
Surr: 4-Terphenyl-d14	88.3	58.5-125		%REC	237435	1	02/06/2017 16:05	YH
Mercury, Total	SW7470A				(SW7470A)			
Mercury	BRL	0.00020		mg/L	237440	1	02/06/2017 15:28	JR
Cyanide	SW9014				(SW9010C)			
Cyanide, Total	BRL	0.010		mg/L	237703	1	02/08/2017 15:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-308BR-0117				Lab ID:	1702054-001		
Collection Date: 1/31/2017 10:05:00 AM				Matrix:	Groundwater		
Total Metals by ICP/MS SW6020B				(SW3005A)			
Barium	72.7		0.185	4.00	ug/L	237472	1
Zinc	36.8		0.580	20.0	ug/L	237472	1
SIM Polynuclear Aromatic Hydrocarbons SW8270D				(SW3510C)			
Acenaphthylene	1.3		0.020	1.0	ug/L	237435	1
Fluorene	0.17		0.019	0.10	ug/L	237435	1
Phenanthrene	0.81		0.022	0.050	ug/L	237435	1
Anthracene	0.38		0.026	0.050	ug/L	237435	1
Fluoranthene	1.8		0.016	0.10	ug/L	237435	1
Pyrene	2.7		0.015	0.050	ug/L	237435	1
Benz(a)anthracene	1.5		0.018	0.050	ug/L	237435	1
Chrysene	1.4		0.017	0.050	ug/L	237435	1
Benzo(b)fluoranthene	1.2		0.020	0.10	ug/L	237435	1
Benzo(k)fluoranthene	0.56		0.026	0.050	ug/L	237435	1
Benzo(a)pyrene	1.5		0.022	0.050	ug/L	237435	1
Indeno(1,2,3-cd)pyrene	0.50		0.012	0.050	ug/L	237435	1
Benzo(g,h,i)perylene	0.62		0.014	0.10	ug/L	237435	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC

Work Order Number 1702059

Checklist completed by [Signature] Date 2/1/17

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 1.2 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Lab Order: 1702054

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1702054-001A	MW-308BR-0117	1/31/2017 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		2/2/2017 12:46:00PM	02/02/2017
1702054-001B	MW-308BR-0117	1/31/2017 10:05:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		2/6/2017 9:30:00AM	02/06/2017
1702054-001C	MW-308BR-0117	1/31/2017 10:05:00AM	Groundwater	Total Metals by ICP/MS		2/6/2017 10:51:00AM	02/08/2017
1702054-001C	MW-308BR-0117	1/31/2017 10:05:00AM	Groundwater	TOTAL MERCURY		2/6/2017 11:07:00AM	02/06/2017
1702054-001D	MW-308BR-0117	1/31/2017 10:05:00AM	Groundwater	Cyanide		2/8/2017 3:00:00PM	02/08/2017

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: MB-237356	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7324167				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acetone	BRL	50									
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Trichloroethene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	42.94	0	50.00		85.9	66.1	129				
Surr: Dibromofluoromethane	55.85	0	50.00		112	83.6	123				
Surr: Toluene-d8	47.68	0	50.00		95.4	81.8	118				

Sample ID: LCS-237356	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7324166			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	37.07	5.0	50.00		74.1	74	125				
Toluene	39.48	5.0	50.00		79.0	75.9	126				
Trichloroethene	38.11	5.0	50.00		76.2	70.6	129				
Surr: 4-Bromofluorobenzene	44.00	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.50	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.83	0	50.00		93.7	81.8	118				

Sample ID: 1701062-001AMS	Client ID:				Units: ug/L	Prep Date: 02/02/2017	Run No: 335629				
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325487				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	46.85	5.0	50.00		93.7	71.6	132				
---------	-------	-----	-------	--	------	------	-----	--	--	--	--

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT

BatchID: 237356

Sample ID: 1701O62-001AMS	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325487			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	49.98	5.0	50.00		100.0	72.5	135				
Trichloroethene	48.34	5.0	50.00		96.7	70.2	132				
Surr: 4-Bromofluorobenzene	44.02	0	50.00		88.0	66.1	129				
Surr: Dibromofluoromethane	53.61	0	50.00		107	83.6	123				
Surr: Toluene-d8	46.86	0	50.00		93.7	81.8	118				

Sample ID: 1701O62-005AMS	Client ID:				Units: ug/L	Prep Date: 02/02/2017	Run No: 335629				
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325490				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.40	5.0	50.00		101	71.6	132				
Toluene	53.90	5.0	50.00		108	72.5	135				
Trichloroethene	50.63	5.0	50.00		101	70.2	132				
Surr: 4-Bromofluorobenzene	42.51	0	50.00		85.0	66.1	129				
Surr: Dibromofluoromethane	54.19	0	50.00		108	83.6	123				
Surr: Toluene-d8	46.61	0	50.00		93.2	81.8	118				

Sample ID: 1701O63-005AMS	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325507			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.66	5.0	50.00		101	71.6	132				
Toluene	54.38	5.0	50.00		109	72.5	135				
Trichloroethene	51.18	5.0	50.00		102	70.2	132				
Surr: 4-Bromofluorobenzene	44.27	0	50.00		88.5	66.1	129				
Surr: Dibromofluoromethane	57.19	0	50.00		114	83.6	123				
Surr: Toluene-d8	47.85	0	50.00		95.7	81.8	118				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237356**

Sample ID: 1701O62-001AMSD	Client ID:	Units: ug/L				Prep Date: 02/02/2017	Run No: 335629				
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 237356				Analysis Date: 02/02/2017	Seq No: 7325488				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	47.77	5.0	50.00		95.5	71.6	132	46.85	1.94	20.7	
Toluene	51.41	5.0	50.00		103	72.5	135	49.98	2.82	23.2	
Trichloroethene	48.45	5.0	50.00		96.9	70.2	132	48.34	0.227	27.7	
Surr: 4-Bromofluorobenzene	43.44	0	50.00		86.9	66.1	129	44.02	0	0	
Surr: Dibromofluoromethane	53.90	0	50.00		108	83.6	123	53.61	0	0	
Surr: Toluene-d8	46.50	0	50.00		93.0	81.8	118	46.86	0	0	

Sample ID: 1701O62-005AMSD	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325491			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	48.80	5.0	50.00		97.6	71.6	132	50.40	3.23	20.7	
Toluene	52.96	5.0	50.00		106	72.5	135	53.90	1.76	23.2	
Trichloroethene	49.16	5.0	50.00		98.3	70.2	132	50.63	2.95	27.7	
Surr: 4-Bromofluorobenzene	43.82	0	50.00		87.6	66.1	129	42.51	0	0	
Surr: Dibromofluoromethane	54.57	0	50.00		109	83.6	123	54.19	0	0	
Surr: Toluene-d8	46.44	0	50.00		92.9	81.8	118	46.61	0	0	

Sample ID: 1701O63-005AMSD	Client ID:					Units: ug/L	Prep Date: 02/02/2017	Run No: 335629			
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B					BatchID: 237356	Analysis Date: 02/02/2017	Seq No: 7325508			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	50.53	5.0	50.00		101	71.6	132	50.66	0.257	20.7	
Toluene	55.31	5.0	50.00		111	72.5	135	54.38	1.70	23.2	
Trichloroethene	52.02	5.0	50.00		104	70.2	132	51.18	1.63	27.7	
Surr: 4-Bromofluorobenzene	44.37	0	50.00		88.7	66.1	129	44.27	0	0	
Surr: Dibromofluoromethane	57.13	0	50.00		114	83.6	123	57.19	0	0	
Surr: Toluene-d8	47.55	0	50.00		95.1	81.8	118	47.85	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237435**

Sample ID: MB-237435	Client ID:				Units: ug/L	Prep Date: 02/06/2017	Run No: 335848				
SampleType: MBLK	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237435	Analysis Date: 02/07/2017	Seq No: 7331286				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	BRL	0.50									
Acenaphthylene	BRL	1.0									
Anthracene	BRL	0.050									
Benz(a)anthracene	BRL	0.050									
Benzo(a)pyrene	BRL	0.050									
Benzo(b)fluoranthene	BRL	0.10									
Benzo(g,h,i)perylene	BRL	0.10									
Benzo(k)fluoranthene	BRL	0.050									
Chrysene	BRL	0.050									
Dibenz(a,h)anthracene	BRL	0.10									
Fluoranthene	BRL	0.10									
Fluorene	BRL	0.10									
Indeno(1,2,3-cd)pyrene	BRL	0.050									
Naphthalene	BRL	0.50									
Phenanthrene	BRL	0.050									
Pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.066	0	2.000		103	58.5	125				

Sample ID: LCS-237435	Client ID:					Units: ug/L	Prep Date: 02/06/2017	Run No: 335778			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237435	Analysis Date: 02/06/2017	Seq No: 7328814			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.771	0.50	2.000		88.5	69.1	117				
Acenaphthylene	1.665	1.0	2.000		83.2	59.7	118				
Anthracene	2.049	0.050	2.000		102	64.7	121				
Benz(a)anthracene	2.343	0.050	2.000		117	61.7	139				
Benzo(a)pyrene	2.218	0.050	2.000		111	65.1	124				
Benzo(b)fluoranthene	1.971	0.10	2.000		98.5	60.8	129				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237435**

Sample ID: LCS-237435	Client ID:					Units: ug/L	Prep Date: 02/06/2017	Run No: 335778			
SampleType: LCS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D					BatchID: 237435	Analysis Date: 02/06/2017	Seq No: 7328814			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(g,h,i)perylene	1.958	0.10	2.000		97.9	60.1	129				
Benzo(k)fluoranthene	2.066	0.050	2.000		103	69.6	130				
Chrysene	2.274	0.050	2.000		114	76.5	127				
Dibenz(a,h)anthracene	1.769	0.10	2.000		88.4	55.2	126				
Fluoranthene	2.174	0.10	2.000		109	66.5	133				
Fluorene	1.840	0.10	2.000		92.0	66.1	122				
Indeno(1,2,3-cd)pyrene	2.021	0.050	2.000		101	58.8	132				
Naphthalene	1.728	0.50	2.000		86.4	60.6	120				
Phenanthrene	1.885	0.050	2.000		94.2	65.9	118				
Pyrene	2.125	0.050	2.000		106	70.2	129				
Surr: 4-Terphenyl-d14	2.103	0	2.000		105	58.5	125				

Sample ID: 1702054-001BMS	Client ID: MW-308BR-0117	Units: ug/L				Prep Date: 02/06/2017	Run No: 335778				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D	BatchID: 237435				Analysis Date: 02/06/2017	Seq No: 7328963				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	2.000	0.50	2.000	0.1893	90.6	49.7	118				
Acenaphthylene	2.913	1.0	2.000	1.311	80.1	56.7	120				
Anthracene	2.297	0.050	2.000	0.3848	95.6	54.4	117				
Benz(a)anthracene	3.600	0.050	2.000	1.533	103	52.4	135				
Benzo(a)pyrene	3.196	0.050	2.000	1.471	86.2	51.5	117				
Benzo(b)fluoranthene	2.738	0.10	2.000	1.158	79.0	45.6	124				
Benzo(g,h,i)perylene	2.357	0.10	2.000	0.6212	86.8	45.9	120				
Benzo(k)fluoranthene	2.080	0.050	2.000	0.5631	75.8	51.8	122				
Chrysene	3.197	0.050	2.000	1.392	90.2	59.9	120				
Dibenz(a,h)anthracene	1.544	0.10	2.000	0.09515	72.4	41.6	120				
Fluoranthene	3.588	0.10	2.000	1.769	91.0	59.7	122				
Fluorene	2.070	0.10	2.000	0.1703	95.0	57.9	117				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237435**

Sample ID: 1702054-001BMS	Client ID: MW-308BR-0117				Units: ug/L	Prep Date: 02/06/2017	Run No: 335778				
SampleType: MS	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237435	Analysis Date: 02/06/2017	Seq No: 7328963				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Indeno(1,2,3-cd)pyrene	2.167	0.050	2.000	0.4964	83.5	45.5	120				
Naphthalene	1.995	0.50	2.000	0.2632	86.6	53.9	120				
Phenanthrene	2.628	0.050	2.000	0.8114	90.8	58.1	120				
Pyrene	4.349	0.050	2.000	2.693	82.8	61.6	120				
Surr: 4-Terphenyl-d14	1.982	0	2.000		99.1	58.5	125				

Sample ID: 1702054-001BMSD	Client ID: MW-308BR-0117				Units: ug/L	Prep Date: 02/06/2017	Run No: 335778				
SampleType: MSD	TestCode: SIM Polynuclear Aromatic Hydrocarbons SW8270D				BatchID: 237435	Analysis Date: 02/06/2017	Seq No: 7329139				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1.846	0.50	2.000	0.1893	82.8	49.7	118	2.000	8.04	17.4	
Acenaphthylene	2.884	1.0	2.000	1.311	78.6	56.7	120	2.913	1.00	19.5	
Anthracene	2.254	0.050	2.000	0.3848	93.5	54.4	117	2.297	1.90	24.5	
Benz(a)anthracene	3.768	0.050	2.000	1.533	112	52.4	135	3.600	4.54	30.2	
Benzo(a)pyrene	3.304	0.050	2.000	1.471	91.7	51.5	117	3.196	3.33	25.6	
Benzo(b)fluoranthene	2.906	0.10	2.000	1.158	87.4	45.6	124	2.738	5.93	20.9	
Benzo(g,h,i)perylene	2.455	0.10	2.000	0.6212	91.7	45.9	120	2.357	4.07	28.6	
Benzo(k)fluoranthene	2.146	0.050	2.000	0.5631	79.2	51.8	122	2.080	3.13	28.6	
Chrysene	3.292	0.050	2.000	1.392	95.0	59.9	120	3.197	2.93	26.4	
Dibenz(a,h)anthracene	1.566	0.10	2.000	0.09515	73.6	41.6	120	1.544	1.44	17.8	
Fluoranthene	3.871	0.10	2.000	1.769	105	59.7	122	3.588	7.59	22.1	
Fluorene	1.892	0.10	2.000	0.1703	86.1	57.9	117	2.070	9.00	20.8	
Indeno(1,2,3-cd)pyrene	2.206	0.050	2.000	0.4964	85.5	45.5	120	2.167	1.83	19.3	
Naphthalene	1.811	0.50	2.000	0.2632	77.4	53.9	120	1.995	9.70	20.6	
Phenanthrene	2.690	0.050	2.000	0.8114	93.9	58.1	120	2.628	2.34	19.4	
Pyrene	4.650	0.050	2.000	2.693	97.8	61.6	120	4.349	6.68	21.2	
Surr: 4-Terphenyl-d14	1.762	0	2.000		88.1	58.5	125	1.982	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT

BatchID: 237440

Sample ID: MB-237440	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335812			
SampleType: MBLK	TestCode: Mercury, Total	SW7470A	BatchID: 237440				Analysis Date: 02/06/2017	Seq No: 7328944			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: LCS-237440	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335812			
SampleType: LCS	TestCode: Mercury, Total	SW7470A	BatchID: 237440				Analysis Date: 02/06/2017	Seq No: 7328945			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005241 0.00020 0.0050 105 80 120

Sample ID: 1702373-001AMS		Client ID:		Units: mg/L		Prep Date: 02/06/2017		Run No: 335812			
SampleType: MS		TestCode: Mercury, Total SW7470A		BatchID: 237440		Analysis Date: 02/06/2017		Seq No: 7328947			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005060 0.00020 0.0050 101 70 130

Sample ID: 1702373-001AMSD	Client ID:				Units: mg/L	Prep Date: 02/06/2017	Run No: 335812				
SampleType: MSD	TestCode: Mercury, Total	SW7470A	BatchID: 237440			Analysis Date: 02/06/2017	Seq No: 7328948				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005049 0.00020 0.0050 101 70 130 0.005060 0.210 20

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237472**

Sample ID: MB-237472	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: MBLK	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237472				Analysis Date: 02/07/2017	Seq No: 7330727			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00500									
Arsenic	BRL	0.00500									
Barium	BRL	0.00400									
Beryllium	BRL	0.00100									
Cadmium	BRL	0.000700									
Chromium	BRL	0.00500									
Copper	BRL	0.00200									
Lead	BRL	0.00100									
Nickel	BRL	0.00500									
Selenium	BRL	0.00500									
Thallium	BRL	0.00100									
Vanadium	BRL	0.00500									
Zinc	BRL	0.0100									

Sample ID: LCS-237472	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237472				Analysis Date: 02/07/2017	Seq No: 7330729			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1036	0.00500	0.1000		104	80	120				
Arsenic	0.1013	0.00500	0.1000		101	80	120				
Barium	0.1023	0.0100	0.1000		102	80	120				
Beryllium	0.1100	0.00100	0.1000		110	80	120				
Cadmium	0.1042	0.000700	0.1000		104	80	120				
Chromium	0.1054	0.00500	0.1000	0.001624	104	80	120				
Copper	0.1034	0.00200	0.1000		103	80	120				
Lead	0.1023	0.00100	0.1000		102	80	120				
Nickel	0.1029	0.00500	0.1000	0.001415	101	80	120				
Selenium	0.1046	0.00500	0.1000		105	80	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT**BatchID: 237472**

Sample ID: LCS-237472	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: LCS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237472				Analysis Date: 02/07/2017	Seq No: 7330729			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium	0.1007	0.00100	0.1000		101	80	120				
Vanadium	0.09811	0.00500	0.1000		98.1	80	120				
Zinc	0.1052	0.0100	0.1000		105	80	120				

Sample ID: 1701P84-001AMS	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: MS	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237472				Analysis Date: 02/07/2017	Seq No: 7330731			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1053	0.00500	0.1000	0.0004200	105	75	125				
Arsenic	0.09925	0.00500	0.1000		99.2	75	125				
Barium	0.1485	0.00400	0.1000	0.04576	103	75	125				
Beryllium	0.1121	0.00100	0.1000	0.0003150	112	75	125				
Cadmium	0.1044	0.000700	0.1000	0.0002040	104	75	125				
Chromium	0.1038	0.00500	0.1000	0.001756	102	75	125				
Copper	0.1098	0.00200	0.1000	0.01065	99.2	75	125				
Lead	0.1037	0.00100	0.1000	0.0001600	104	75	125				
Nickel	0.09951	0.00500	0.1000	0.001278	98.2	75	125				
Selenium	0.1021	0.00500	0.1000		102	75	125				
Thallium	0.1023	0.00100	0.1000	0.0002290	102	75	125				
Vanadium	0.09564	0.00500	0.1000		95.6	75	125				
Zinc	0.1379	0.0100	0.1000	0.03853	99.4	75	125				

Sample ID: 1701P84-001AMSD	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: MSD	TestCode: Total Metals by ICP/MS	SW6020B	BatchID: 237472				Analysis Date: 02/07/2017	Seq No: 7330732			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1052	0.00500	0.1000	0.0004200	105	75	125	0.1053	0.095	20	
Arsenic	0.09966	0.00500	0.1000		99.7	75	125	0.09925	0.412	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
Project Name: AGL - Augusta
Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT

BatchID: 237472

Sample ID: 1701P84-001AMSD	Client ID:					Units: mg/L	Prep Date: 02/06/2017	Run No: 335856			
SampleType: MSD	TestCode:	Total Metals by ICP/MS	SW6020B			BatchID: 237472	Analysis Date: 02/07/2017	Seq No: 7330732			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	0.1476	0.00400	0.1000	0.04576	102	75	125	0.1485	0.608	20	
Beryllium	0.1123	0.00100	0.1000	0.0003150	112	75	125	0.1121	0.178	20	
Cadmium	0.1045	0.000700	0.1000	0.0002040	104	75	125	0.1044	0.096	20	
Chromium	0.1045	0.00500	0.1000	0.001756	103	75	125	0.1038	0.672	20	
Copper	0.1106	0.00200	0.1000	0.01065	100.0	75	125	0.1098	0.726	20	
Lead	0.1030	0.00100	0.1000	0.0001600	103	75	125	0.1037	0.677	20	
Nickel	0.1011	0.00500	0.1000	0.001278	99.8	75	125	0.09951	1.59	20	
Selenium	0.1018	0.00500	0.1000		102	75	125	0.1021	0.294	20	
Thallium	0.1021	0.00100	0.1000	0.0002290	102	75	125	0.1023	0.196	20	
Vanadium	0.09621	0.00500	0.1000		96.2	75	125	0.09564	0.594	20	
Zinc	0.1420	0.0100	0.1000	0.03853	103	75	125	0.1379	2.93	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc. -Kennesaw
 Project Name: AGL - Augusta
 Workorder: 1702054

ANALYTICAL QC SUMMARY REPORT

BatchID: 237703

Sample ID: MB-237703	Client ID:					Units: mg/L	Prep Date: 02/08/2017	Run No: 336010			
SampleType: MBLK	TestCode: Cyanide	SW9014	BatchID: 237703				Analysis Date: 02/08/2017	Seq No: 7334530			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010

Sample ID: LCS-237703		Client ID:			Units: mg/L		Prep Date: 02/08/2017		Run No: 336010		
SampleType: LCS		TestCode: Cyanide SW9014			BatchID: 237703		Analysis Date: 02/08/2017		Seq No: 7334531		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2660 0.010 0.2500 106 85 115

Sample ID: 1702054-001DMS	Client ID: MW-308BR-0117	Units: mg/L	Prep Date: 02/08/2017	Run No: 336010							
SampleType: MS	TestCode: Cyanide SW9014	BatchID: 237703	Analysis Date: 02/08/2017	Seq No: 7334541							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2570 0.010 0.2500 103 70 130

Sample ID: 1702054-001DMSD		Client ID: MW-308BR-0117				Units: mg/L		Prep Date: 02/08/2017		Run No: 336010	
SampleType: MSD		TestCode: Cyanide SW9014				BatchID: 237703		Analysis Date: 02/08/2017		Seq No: 7334542	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total 0.2590 0.010 0.2500 104 70 130 0.2570 0.775 20

Sample ID: 1702099-003BDUP	Client ID:					Units: mg/L	Prep Date: 02/08/2017	Run No: 336010			
SampleType: DUP	TestCode: Cyanide	SW9014					BatchID: 237703	Analysis Date: 02/08/2017	Seq No: 7334543		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total BRL 0.010 0 0 20

Qualifiers:

> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

APPENDIX C
SEEPAGE VELOCITY CALCULATIONS

Appendix C
Seepage Velocity Calculations
Atlanta Gas Light Company
Former Manufactured Gas Plant Site

Hydrogeologic Unit	Hydraulic Conductivity (cm/sec)	Porosity (unitless)	January 23, 2017		Monitoring wells used for gradient calculations
			Gradient	Velocity (ft/day)	
Alluvium	1.170E-03	2.10E-01	1.60E-02	2.5E-01	MW-17 & 123 contour
Galliard	1.500E-04	2.60E-01	1.90E-02	3.1E-02	MW-207; MW-505D; MW-304
Galliard	1.500E-04	2.60E-01	3.70E-03	6.1E-03	MW-21; MW-25; MW-203
Galliard	1.500E-04	2.60E-01	5.99E-03	9.8E-03	MW-21; MW-24; MW-202DR
Saprolite	8.980E-06	8.00E-02	4.25E-03	1.4E-03	MW-306SAP; MW-310SAP; MW-401SAP
Bedrock*	9.348E-04	1.42E-02	3.10E-03	5.8E-01	MW-325; MW-318; MW-513BR
Bedrock*	9.348E-04	1.42E-02	1.88E-03	3.5E-01	MW-504BR; MW-313; MW-309TZ
Bedrock*	9.348E-04	6.00E-01	3.10E-03	1.4E-02	MW-325; MW-318; MW-513BR
Bedrock*	9.348E-04	6.00E-01	1.88E-03	8.3E-03	MW-504BR; MW-313; MW-309TZ

*Bedrock porosity range taken from Applied Hydrogeology 4th Ed., Fetter, 2001

Multiple bedrock and Galliard gradients are presented from different areas of the site.

Porosities used in velocity calculations are average specific yield values published in USGS Water Supply Paper 1662-D

$V_s = K_i / n$

where:

V_s =seepage velocity (velocity)

K =horizontal hydraulic conductivity

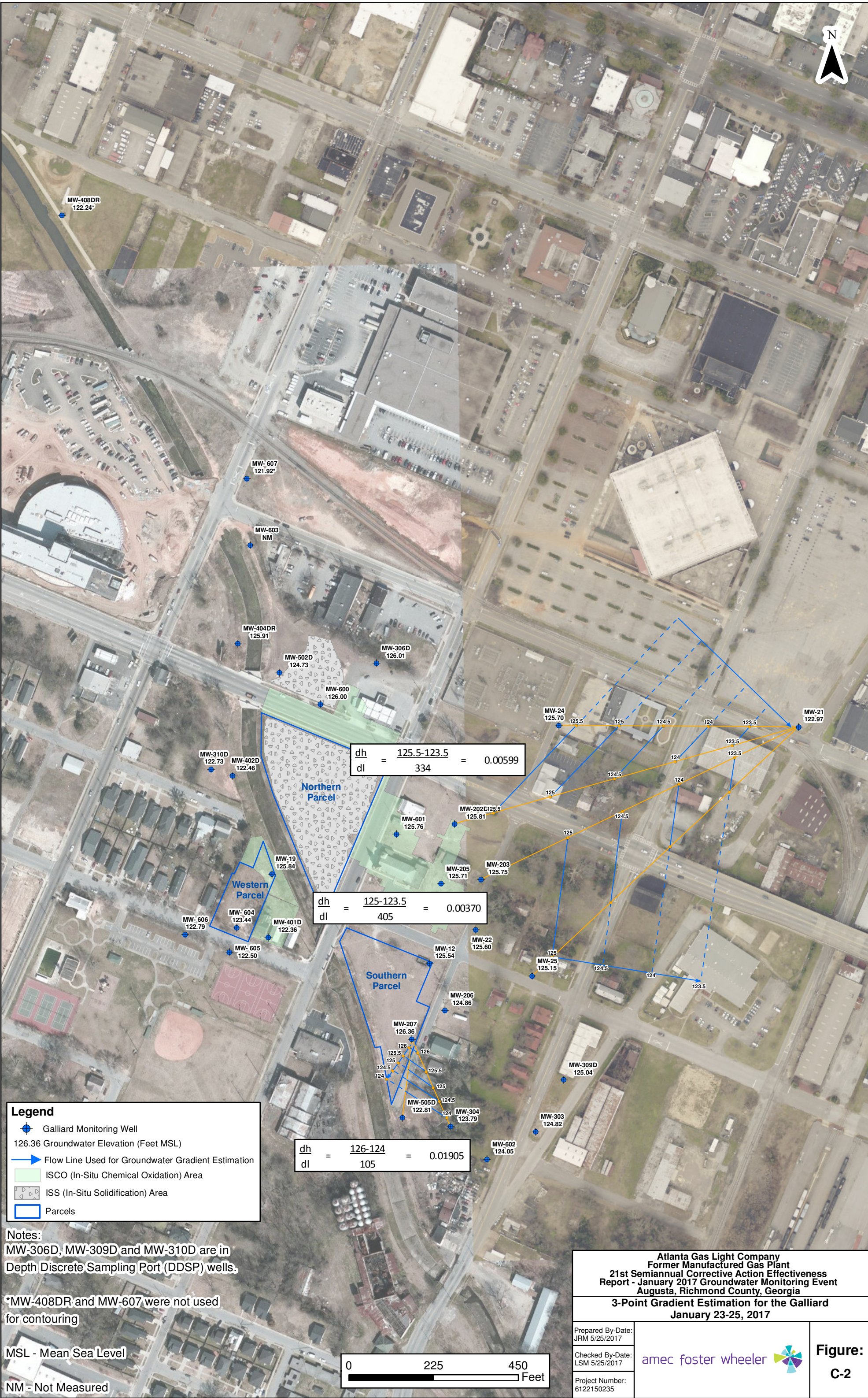
i =horizontal hydraulic gradient (gradient)

n =porosity

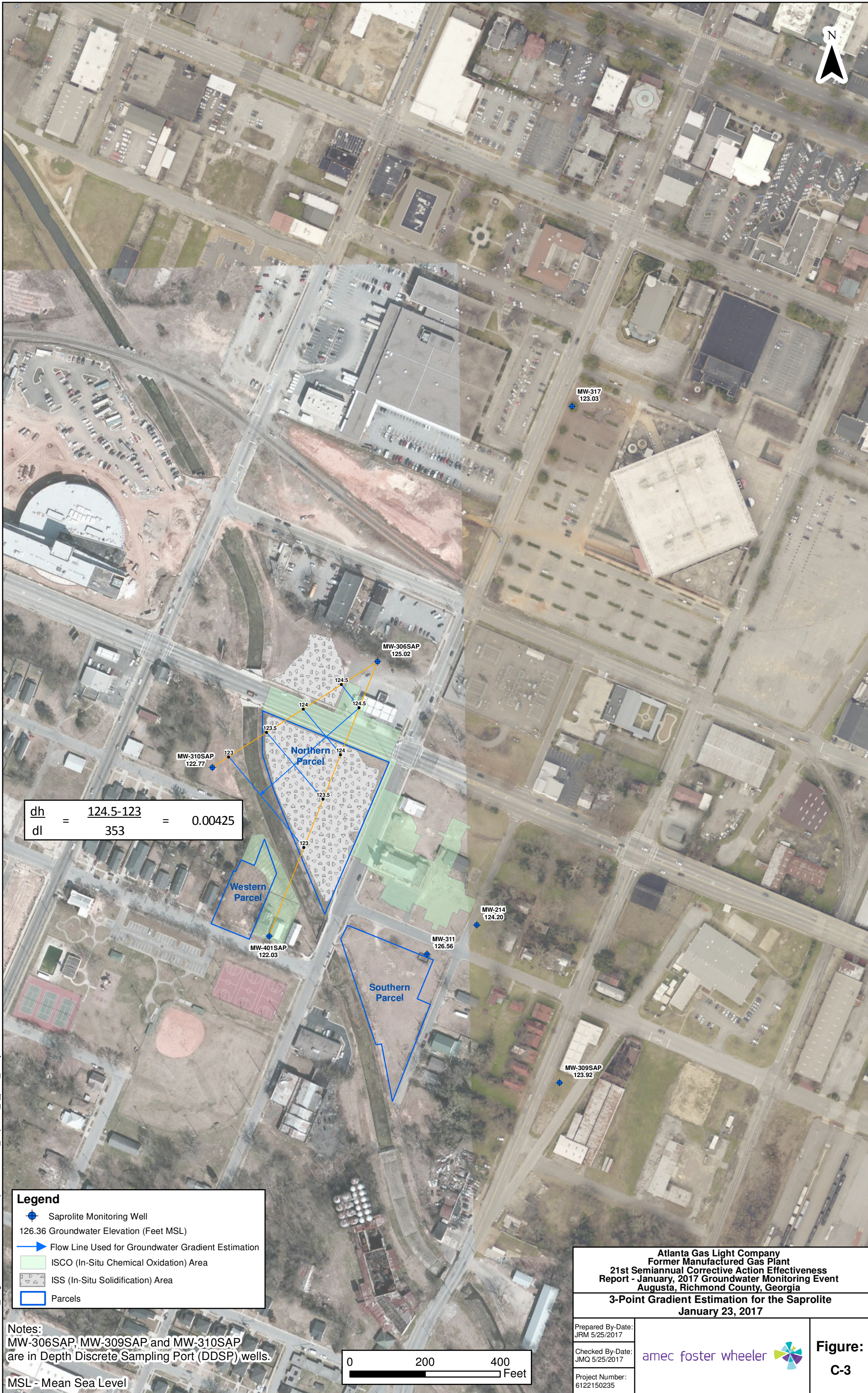
Prepared by/date: JMQ 4/11/2017

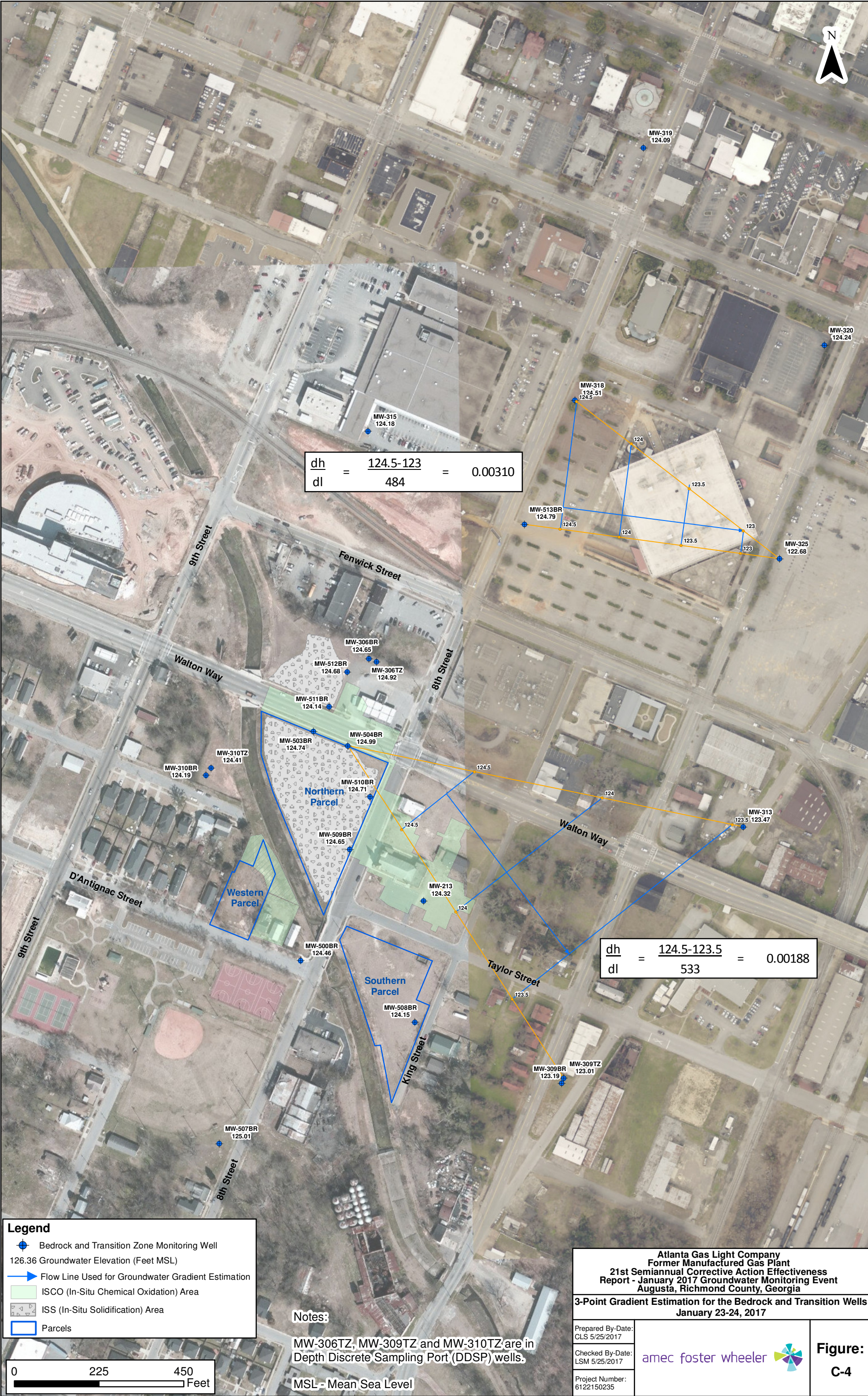
Checked by/date: NJM 4/12/2017





Document Path: G:\AGL_Augustamxds\2017 First Report\MXD\GW_Saprolite_3_point_analysis.mxd





APPENDIX D
ANALYTICAL DATA VALIDATION CHECKLIST

January 2017 Data Evaluation Narrative

Project: Atlanta Gas Light

Amec Foster Wheeler Project Number: 6122150235.03.****

Site: Augusta, GA

Matrix: Groundwater

AES SDG No: 1701M28

Introduction

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range with the exception of one broken vial received for samples Trip Blank and "MW-207-0716. The remaining VOC vials were intact allowing for successful analyses. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
TB-01-0117	01/24/17	II	DUP-01-0117	01/24/17	II
MW-509BR-0117	01/24/17	II	MW-311-0117	01/24/17	II
MW-510BR-0117	01/24/17	II	MW-306D-0117	01/24/17	II
MW-504BR-0117	01/24/17	II	MW-306SAP-0117	01/24/17	II
MW-503BR-0117	01/24/17	II	MW-306TZ-0117	01/24/17	II
MW-207-0117	01/24/17	II	MW-306BR-0117	01/24/17	II
MW-508BR-0117	01/24/17	II	DUP-02-0117	01/24/17	II
MW-12-0117	01/24/17	II			

These samples were collected on January 24, 2017. Sample DUP-01-0117 is a field duplicate sample of MW-12-0117, and sample DUP-02-0117 is a field duplicate of sample MW-306BR-0117. Sample TB-01-0117 is a trip blank.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits.

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/06/17
Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701M28

Reviewer/Date: D. Howard 02/03/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and a trip blank for a level II review. These samples were analyzed for select VOCs. Associated samples include: TB-01-0117, MW-509BR-0117, MW-510BR-0117, MW-504BR-0117, MW-503BR-0117, MW-207-0117, MW-508BR-0117, MW-12-0117, DUP-01-0117, MW-311-0117, MW-306D-0117, MW-306SAP-0117, MW-306TZ-0117, MW-306BR-0117 and DUP-02-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/24/17

Anal: 01/28/17, 01/30/17



QC Blanks Review

MB- 237146 = ND

MB- 237205 = ND

TB-01-0117= ND



Laboratory Control Sample (LCS) recovery within limits

LCS- 237146 – All % Rec OK

LCS- 237205 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-01-0117 = MW-12-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Benzene</i>	10000	10000	0
<i>Ethylbenzene</i>	2500	2500	0
<i>Toluene</i>	1700	1800	5.71
<i>Xylenes, total</i>	2100	2100	0

DUP-02-0117 = MW-306BR-0117 (**All ND**)



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M28-008AMS/MSD (*MW-12-0117*)

Benzene 116%, 115% RPD = 0.178

Toluene 125%, 119% RPD = 4.04

Trichloroethene 120, 120% RPD = 0.20

All % Recoveries and RPDs within limits.

1701M29-003AMS/MSD (MW-600-0117)

Benzene 103, 95.5% RPD = 3.55

Toluene 105, 101% RPD = 2.74

Trichloroethene 93.7, 92.3% RPD = 1.42

All % Recoveries and RPDs within limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701M28

Reviewer/Date: D. Howard 02/3/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-509BR-0117, MW-510BR-0117, MW-504BR-0117, MW-503BR-0117, MW-207-0117, MW-508BR-0117, MW-12-0117, DUP-01-0117, MW-311-0117, MW-306D-0117, MW-306SAP-0117, MW-306TZ-0117, MW-306BR-0117 and DUP-02-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/24/17

Prep. Date: 01/27/17

Anal: 01/30/17, 01/31/17



QC Blanks Review

MB-237012= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237012– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-01-0117 = MW-12-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Acenaphthene</i>	120	120	0
<i>Acenaphthylene</i>	9.9	9.3	6.25
<i>Anthracene</i>	2.9	2.8	3.5
<i>Fluoranthene</i>	0.43	0.39	9.76
<i>Fluorene</i>	25	26	3.92
<i>Naphthalene</i>	7000	7100	1.42
<i>Phenanthrene</i>	16	16	0
<i>Pyrene</i>	0.46	0.45	2.2
<i>Benzo(a)anthracene</i>	0.056	0.058	3.51

DUP-02-0117 = MW-306BR-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Acenaphthene</i>	14	15	6.90
<i>Anthracene</i>	0.31	0.33	6.25
<i>Fluoranthene</i>	0.11	0.12	8.70
<i>Fluorene</i>	2.7	2.9	7.14
<i>Naphthalene</i>	310	380	20.3
<i>Phenanthrene</i>	1.4	1.5	6.90
<i>Pyrene</i>	0.14	0.15	6.90



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M28-002BMS/MSD (MW-509BR-0117)

All results are within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701M28

Reviewer/Date: D. Howard 02/06/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn. Associated samples include: MW-509BR-0117, MW-510BR-0117, MW-504BR-0117, MW-503BR-0117, MW-207-0117, MW-508BR-0117, MW-12-0117, DUP-01-0117, MW-311-0117, MW-306D-0117, MW-306SAP-0117, MW-306TZ-0117, MW-306BR-0117 and DUP-02-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/24/17

Prep Date: 01/27/17, 01/30/17

Analyzed: 01/30/17, 01/31/17, 02/01/17



QC Blanks Review

MB-237075 = ND

MB-237132 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237075 – All % Rec OK

LCS-237132 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-01-0117 = MW-12-0117

<i>Constituent</i>	<i>P. Sample</i>	<i>D. Sample</i>	<i>%RPD</i>
<i>Barium</i>	0.209	0.183	13.1

DUP-02-0117 = MW-306BR-0117

<i>Constituent</i>	<i>P. Sample</i>	<i>D. Sample</i>	<i>%RPD</i>
<i>Barium</i>	0.431	0.428	0.698



Matrix Spike recoveries and RPDs within limits (if applicable)

MW-508BR-0117 All OK

DUP-01-0117 All OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701M28

Reviewer/Date: D Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-509BR-0117, MW-510BR-0117, MW-504BR-0117, MW-503BR-0117, MW-207-0117, MW-508BR-0117, MW-12-0117, DUP-01-0117, MW-311-0117, MW-306D-0117, MW-306SAP-0117, MW-306TZ-0117, MW-306BR-0117 and DUP-02-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/24/17

Prep. Date: 02/01/17

Anal: 02/01/17



QC Blanks Review

MB-237237 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237237 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-01-0117 = MW-12-0117 (All ND)

DUP-02-0117 = MW-306BR-0117 (All ND)



Matrix Spike recoveries and RPDs within limits (if applicable)

MW-306D-0117

Hg = 108%/109% RPD – 0.663



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701M28

Reviewer/Date: D. Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-509BR-0117, MW-510BR-0117, MW-504BR-0117, MW-503BR-0117, MW-207-0117, MW-508BR-0117, MW-12-0117, DUP-01-0117, MW-311-0117, MW-306D-0117, MW-306SAP-0117, MW-306TZ-0117, MW-306BR-0117 and DUP-02-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/24/17

Prep. Date: 01/31/17

Anal: 01/31/17



QC Blanks Review

MB-237285 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237285 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-01-0716 = MW-12-0716

ND 0.012 No flag, < 5x RL

DUP-02-0716 = MW-306BR-0716 **(All ND)**



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001DMS/001DMSD non-project sample

Cyanide = 93.2%/103% RPD = 9.80 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative

Project: Atlanta Gas Light

Amec Foster Wheeler Project Number: 6122150235.03.****

Site: Augusta, GA

Matrix: Groundwater

AES SDG No: 1701M29

Introduction

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
TB-02-0117	01/25/17	II	MW-19-0117	01/25/17	II
MW-512BR-0117	01/25/17	II	DUP-6-0117	01/25/17	II
MW-600-0117	01/25/17	II	MW-205-0117	01/25/17	II
DUP-3-0117	01/25/17	II	MW-213-0117	01/25/17	II
MW-511BR-0117	01/25/17	II	MW-214-0117	01/25/17	II
MW-402D-0117	01/25/17	II	MW-22-0117	01/25/17	II
MW-402S-0117	01/25/17	II			

These samples were collected on January 25, 2017. Sample DUP-3-0117 is a field duplicate sample of MW-600-0117, and sample DUP-6-0117 is a field duplicate of sample MW-19-0117. Sample TB-02-0117 is a trip blank.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits with the exception of field duplicate RPDs.

Field Duplicate Precision

One field duplicate pair, (DUP-6-0117 / MW-19-0117), had an RPD outside of QC limits for anthracene, benzo(a)anthracene, benzo(a)pyrene and pyrene.

Action: No qualification was required because the PAHs were present in the samples at concentrations less than 5x the reporting limit.

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/07/17
Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701M29

Reviewer/Date: D. Howard 02/06/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and a trip blank for a level II review. These samples were analyzed for select VOCs. Associated samples include: TB-02-0117, MW-512BR-0117, MW-600-0117, DUP-3-0117, MW-511BR-0117, MW-402D-0117, MW-402S-0117, MW-19-0117, DUP-6-0117, MW-205-0117, MW-213-0117, MW-214-0117 and MW-22-0117



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 2.4, 0.9, 4.4°C



Holding times met

Collected: 01/25/17

Anal: 1/30/17, 1/31/17



QC Blanks Review

MB- 237205 = ND

TB-02-0117= ND



Laboratory Control Sample (LCS) recovery within limits

LCS- 237205 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-3-0117 = MW-600-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Benzene</i>	27000	27000	0
<i>Ethylbenzene</i>	2700	2700	0
<i>Toluene</i>	10000	10000	0
<i>Xylenes, total</i>	3700	3700	0



DUP-6-0117 = MW-19-0117 (All ND)

Matrix Spike recoveries and RPDs within limits (if applicable)

MW-600-0117

Benzene 103%, 95.5% RPD = 3.55

Toluene 105%, 101% RPD = 2.74

Trichloroethene 93.7, 92.3% RPD = 1.42

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701M29

Reviewer/Date: D. Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-512BR-0117, MW-600-0117, DUP-3-0117, MW-511BR-0117, MW-402D-0117, MW-402S-0117, MW-19-0117, DUP-6-0117, MW-205-0117, MW-213-0117, MW-214-0117 and MW-22-0117



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/25/17

Prep. Date: 01/27/17

Anal: 01/27/17, 1/30/17, 1/31/17, 2/01/17



QC Blanks Review

MB-237011= ND

MB-237012= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237011– All % Rec OK

LCS-237012– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-3-0117 = MW-600-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Acenaphthene</i>	21	21	0
<i>Acenaphthylene</i>	74	79	6.54
<i>Anthracene</i>	3.3	3.4	2.98
<i>Benz(a)anthracene</i>	0.41	0.50	19.8
<i>Benzo(b)fluoranthene</i>	0.20	0.23	14.0
<i>Benzo(k)fluoranthene</i>	0.085	0.11	25.6
<i>Benzo(a)pyrene</i>	0.23	0.26	12.2
<i>Benzo(g,h,i)perylene</i>	0.11	0.13	16.7
<i>Chrysene</i>	0.32	0.38	17.1
<i>Fluoranthene</i>	1.6	1.8	11.8
<i>Fluorene</i>	15	17	12.5
<i>Indeno(1,2,3-cd)pyrene</i>	0.079	0.092	15.2
<i>Naphthalene</i>	5400	5700	5.41
<i>Phenanthrene</i>	13	14	7.41
<i>Pyrene</i>	2.2	2.4	8.70

DUP-6-0117 = MW-19-0117

Constituent	P. Sample	D. Sample	%RPD	Flag
<i>Anthracene</i>	0.24	0.16	40	No Flag <5x RL
<i>Benz(a)anthracene</i>	0.095	0.056	51.7	No Flag <5x RL
<i>Benzo(b)fluoranthene</i>	0.12	ND	NC	
<i>Benzo(k)fluoranthene</i>	0.056	ND	NC	
<i>Benzo(a)pyrene</i>	0.082	0.051	46.6	No Flag <5x RL
<i>Benzo(g,h,i)perylene</i>	0.10	ND	NC	
<i>Chrysene</i>	0.075	ND	NC	
<i>Indeno(1,2,3-cd)pyrene</i>	0.069	ND	NC	
<i>Phenanthrene</i>	0.051	ND	NC	
<i>Pyrene</i>	0.19	0.11	53.3	No Flag <5x RL



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M28-002BMS/MSD

All results are within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701M29

Reviewer/Date: D. Howard 02/06/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn. Associated samples include: MW-512BR-0117, MW-600-0117, DUP-3-0117, MW-511BR-0117, MW-402D-0117, MW-402S-0117, MW-19-0117, DUP-6-0117, MW-205-0117, MW-213-0117, MW-214-0117 and MW-22-01177



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/25/17

Prep Date: 01/30/17

Analyzed: 02/01/17



QC Blanks Review

MB-237132 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237132 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-3-0117 = MW-600-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Barium</i>	0.131	0.139	5.93
<i>Copper</i>	0.0211	0.0200	5.35
<i>Zinc</i>	0.147	0.142	3.46

DUP-6-0117 = MW-19-0117

Constituent	P. Sample	D. Sample	%RPD
<i>Barium</i>	0.0630	0.0629	0.159
<i>Chromium</i>	0.0114	0.0109	4.448
<i>Nickel</i>	0.0300	0.0300	0
<i>Zinc</i>	0.0745	0.0758	1.73



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M28-009CMSD All OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

Amec Foster Wheeler Environment & Infrastructure, Inc.

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701M29

Reviewer/Date: D Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-512BR-0117, MW-600-0117, DUP-3-0117, MW-511BR-0117, MW-402D-0117, MW-402S-0117, MW-19-0117, DUP-6-0117, MW-205-0117, MW-213-0117, MW-214-0117 and MW-22-01177



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/25/17

Prep. Date: 02/01/17

Anal: 02/01/17



QC Blanks Review

MB-237236 = ND

MB-237237 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237236 – All % Rec OK

LCS-237237 – All %Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-3-0117 = MW-600-0117 (All ND)

DUP-6-0117 = MW-19-0117 (All ND)



Matrix Spike recoveries and RPDs within limits (if applicable)

MW-402D-0117

Hg = 111%/111% RPD – 0.621



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701M29

Reviewer/Date: D. Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-512BR-0117, MW-600-0117, DUP-3-0117, MW-511BR-0117, MW-402D-0117, MW-402S-0117, MW-19-0117, DUP-6-0117, MW-205-0117, MW-213-0117, MW-214-0117 and MW-22-01177



Case Narrative and COC Completeness Review

Cooler temp: 0.9, 4.4, 0.3, 0.6, 2.4°C



Holding times met

Collected: 01/25/17

Prep. Date: 01/31/17

Anal: 01/31/17



QC Blanks Review

MB-237285 = ND

MB-237286 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237285 – All % Rec OK

LCS-237286 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-3-0117 = MW-600-0117 (All ND)

DUP-6-0117 = MW-19-0117 (All ND)



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001DMS/001DMSD

Cyanide = 93.2%/103% RPD = 9.80 OK

1701052-003DMS/003DMSD

CN = 77.2, 79.2% RPD = 2.56 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative**Project: Atlanta Gas Light****Amec Foster Wheeler Project Number: 6122150235.03.********Site: Augusta, GA****Matrix: Groundwater****AES SDG No: 1701M30****Introduction**

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
MW-505D-0117	01/24/17	II	MW-203-0117	01/25/17	II
MW-304-0117	01/24/17	II	MW-202DR-0117	01/25/17	II
MW-602-0117	01/24/17	II	MW-601-0117	01/25/17	II
MW-303-0117	01/24/17	II	MW-21-0117	01/25/17	II
MW-309BR-0117	01/24/17	II	MW-313-0117	01/25/17	II
MW-206-0117	01/24/17	II	MW-325-0117	01/25/17	II

These samples were collected on January 24-25, 2017. Trip blank TB-01-0117 in SDG 1701M28 is associated with samples collected on 01/24/17, and trip blank TB-02-0117 in SDG 1701M29 is associated with samples collected on 01/25/17.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits.

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/08/17

Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701M30

Reviewer/Date: D. Howard 02/07/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and trip blanks for a level II review. These samples were analyzed for select VOCs. Associated samples include: MW-505D-0117, MW-304-0117, MW-602-0117, MW-303-0117, MW-309BR-0117, MW-206-0117, MW-203-0117, MW-202DR-0117, MW-601-0117, MW-21-0117, MW-313-0117 and MW-325-0117.

Trip blank TB-01-0117 in SDG 1701M28 is associated with samples collected on 01/24/17 and trip blank TB-02-0117 in SDG 1701M29 is associated with samples collected on 01/25/17.



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 0.9, 1.3, 2.5, 1.1°C



Holding times met

Collected: 01/24-25/17

Anal: 01/28/17, 01/30/17



QC Blanks Review

MB- 237146 = ND

TB-01-0117 = ND in SDG 1701M28

TB-02-0117 = ND in SDG 1701M29



Laboratory Control Sample (LCS) recovery within limits

LCS- 237146 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicates in this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M28-008AMS/MSD (MW-12-0117)

Benzene 116%, 115% RPD = 0.178

Toluene 125%, 119% RPD = 4.04

Trichloroethene 120, 120% RPD = 0.20

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701M30

Reviewer/Date: D. Howard 02/7/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>
------------	-----------	-----------	-----------------

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-505D-0117, MW-304-0117, MW-602-0117, MW-303-0117, MW-309BR-0117, MW-206-0117, MW-203-0117, MW-202DR-0117, MW-601-0117, MW-21-0117, MW-313-0117 and MW-325-0117.



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 0.9, 1.3, 2.5, 1.1°C



Holding times met

Collected: 01/24/17, 1/25/17

Prep. Date: 01/27/17, 01/30/17

Anal: 01/27/17, 01/31/17



QC Blanks Review

MB-237011 = ND

MB-237121= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237011 – All % Rec OK

LCS-237121– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicates samples analyzed.



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M30-007BMS/MSD – All %REC and RPD within QC limits

1701O63-005BMS/MSD

All results are within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701M30

Reviewer/Date: D. Howard 02/7/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>
-------------------	------------------	------------------	------------------------

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn. Associated samples include: MW-505D-0117, MW-304-0117, MW-602-0117, MW-303-0117, MW-309BR-0117, MW-206-0117, MW-203-0117, MW-202DR-0117, MW-601-0117, MW-21-0117, MW-313-0117 and MW-325-0117.



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 0.9, 1.3, 2.5, 1.1°C



Holding times met

Collected: 01/24/17, 1/25/17

Prep Date: 01/30/17

Analyzed: 01/31/17, 2/02/17



QC Blanks Review

MB-237133 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237133 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicates samples analyzed



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O63-005CMS/MSD All Ok



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701M30

Reviewer/Date: D Howard 02/7/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-505D-0117, MW-304-0117, MW-602-0117, MW-303-0117, MW-309BR-0117, MW-206-0117, MW-203-0117, MW-202DR-0117, MW-601-0117, MW-21-0117, MW-313-0117 and MW-325-0117.



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 0.9, 1.3, 2.5, 1.1°C



Holding times met

Collected: 01/24/17, 1/25/17

Prep. Date: 01/30/17

Anal: 01/30/17



QC Blanks Review

MB-237082 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237082 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed



Matrix Spike recoveries and RPDs within limits (if applicable)

1701M-001CMS/MSD (MW-505D-0117)

Hg = 102%/103% RPD – 1.88



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701M30

Reviewer/Date: D. Howard 02/7/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-505D-0117, MW-304-0117, MW-602-0117, MW-303-0117, MW-309BR-0117, MW-206-0117, MW-203-0117, MW-202DR-0117, MW-601-0117, MW-21-0117, MW-313-0117 and MW-325-0117.



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 0.9, 1.3, 2.5, 1.1°C



Holding times met

Collected: 01/24/17, 1/25/17

Prep. Date: 01/31/17

Anal: 01/31/17



QC Blanks Review

MB-237286 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237286 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-003DMS/MSD (MW-408S-0117)

Cyanide = 77.2%/79.2%, RPD = 2.56 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative

Project: Atlanta Gas Light

Amec Foster Wheeler Project Number: 6122150235.03.****

Site: Augusta, GA

Matrix: Groundwater

AES SDG No: 1701061

Introduction

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range with the exception of one broken vial received for samples Trip Blank and "MW-207-0716. The remaining VOC vials were intact allowing for successful analyses. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
TB-03-0117	01/26/17	II	MW-401D-0117	01/26/17	II
MW-310SAP-0117	01/26/17	II	MW-607-0117	01/26/17	II
MW-310BR-0117	01/26/17	II	MW-404DR-0117	01/26/17	II
MW-401S-0117	01/26/17	II	MW-501S-0117	01/26/17	II
DUP-4-0117	01/26/17	II	DUP-5-0117	01/26/17	II
MW-318-0117	01/26/17	II			

These samples were collected on January 26, 2017. Sample DUP-4-0117 is a field duplicate sample of MW-401S-0117, and sample DUP-5-0117 is a field duplicate of sample MW-501S-0117. Sample TB-03-0117 is a trip blank.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits.

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/08/17

Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701O61

Reviewer/Date: D. Howard 02/08/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and a trip blank for a level II review. These samples were analyzed for select VOCs. Associated samples include: TB-03-0117, MW-310SAP-0117, MW-310BR-0117, MW-401S-0117, DUP-4-0117, MW-318-0117, MW-401D-0117, MW-607-0117, MW-404DR-0117, MW-501S-0117 and DUP-5-0117



Case Narrative and COC Completeness Review

Cooler temp: 4.0, 2.1, 3.4°C



Holding times met

Collected: 01/26/17

Anal: 01/30/17, 1/31/17



QC Blanks Review

MB- 237172 = ND

TB-03-0117= ND



Laboratory Control Sample (LCS) recovery within limits

LCS- 237172 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-4-0117 = MW-401S-0117

All ND

DUP-5-0117 = MW-501S-0117

All ND



Matrix Spike recoveries and RPDs within limits (if applicable)

1701N19-010AMS/MSD (non-project)

Benzene 87.3%, 88.5% RPD = 1.32

Toluene 89.6%, 92.0% RPD = 2.56

Trichloroethene 93.3, 94.9% RPD = 1.66

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701O61

Reviewer/Date: D. Howard 02/8/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-310SAP-0117, MW-310BR-0117, MW-401S-0117, DUP-4-0117, MW-318-0117, MW-401D-0117, MW-607-0117, MW-404DR-0117, MW-501S-0117 and DUP-5-0117



Case Narrative and COC Completeness Review

Cooler temp: 4.0, 2.1, 3.4°C



Holding times met

Collected: 01/26/17

Prep. Date: 01/30/17

Anal: 02/01/17, 02/02/17



QC Blanks Review

MB-237121= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237121– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

DUP-4-0117 = MW-401S-0117

All ND

DUP-5-0117 = MW-501S-0117

All ND



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O63-005BMS/MSD (MW-319-0117)

All results are within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701O61

Reviewer/Date: D. Howard 02/08/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn. Associated samples include: MW-310SAP-0117, MW-310BR-0117, MW-401S-0117, DUP-4-0117, MW-318-0117, MW-401D-0117, MW-607-0117, MW-404DR-0117, MW-501S-0117 and DUP-5-0117



Case Narrative and COC Completeness Review

Cooler temp: 4.0, 2.1, 3.4°C



Holding times met

Collected: 01/26/17

Prep Date: 02/01/17

Analyzed: 02/03/17



QC Blanks Review

MB-237273 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237273 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-4-0117 = MW-401S-0117

<i>Constituent</i>	<i>P. Sample</i>	<i>D. Sample</i>	<i>%RPD</i>
<i>Barium</i>	0.101	0.0998	1.20

DUP-5-0117 = MW-501S-0117

<i>Constituent</i>	<i>P. Sample</i>	<i>D. Sample</i>	<i>%RPD</i>
<i>Barium</i>	0.0453	0.0516	13.0



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O61-002CMS/MSD (MW-310SAP-0117)

All within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701O61

Reviewer/Date: D Howard 02/8/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-310SAP-0117, MW-310BR-0117, MW-401S-0117, DUP-4-0117, MW-318-0117, MW-401D-0117, MW-607-0117, MW-404DR-0117, MW-501S-0117 and DUP-5-0117



Case Narrative and COC Completeness Review

Cooler temp: 4.0, 2.1, 3.4°C



Holding times met

Collected: 01/26/17

Prep. Date: 02/02/17

Anal: 02/02/17



QC Blanks Review

MB-237317 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237317 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-4-0117 = MW-401S-0117 (All ND)

DUP-5-0117 = MW-501S-0117 (All ND)



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001CMS/MSD (MW-513BR-0117)

Hg = 100%/101% RPD – 0.996 OK

1701O62-005CMS/MSD (MW-507BR-0117)

Hg = 106%/104% RPD – 1.40 OK

1701O63-005CMS/MSD (MW-320-0117)

Hg = 105%/104% RPD – 0.774 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701O61

Reviewer/Date: D. Howard 02/8/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-310SAP-0117, MW-310BR-0117, MW-401S-0117, DUP-4-0117, MW-318-0117, MW-401D-0117, MW-607-0117, MW-404DR-0117, MW-501S-0117 and DUP-5-0117



Case Narrative and COC Completeness Review

Cooler temp: 4.0, 2.1, 3.4°C



Holding times met

Collected: 01/26/17

Prep. Date: 02/01/17

Anal: 02/01/17



QC Blanks Review

MB-237297 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237297 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

DUP-4-0716 = MW-401S-0117 (All ND)

DUP-5-0716 = MW-501S-0117 (All ND)



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-005DMS/MSD (MW-507BR-0117)

Cyanide = 91.6%/99.2% RPD = 97.97 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative**Project: Atlanta Gas Light****Amec Foster Wheeler Project Number: 6122150235.03.********Site: Augusta, GA****Matrix: Groundwater****AES SDG No: 1701062****Introduction**

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

UJ = The constituent was not detected; the detection limit may be imprecise.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl), vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
MW-513BR-0117	01/26/17	II	MW-408DR-0117	01/26/17	II
MW-513BR-0117-MS/MSD	01/26/17	II	MW-507BR-0117	01/27/17	II
MW-315-0117	01/26/17	II	MW-507BR-0117-MS/MSD	01/27/17	II
MW-408S-0117	01/26/17	II			

These samples were collected on January 26 and 27, 2017. Trip blank TB-03-0117 in SDG 1701O61 is associated with samples collected on 01/26/17, and trip blank TB-04-0117 in SDG 1701O63 is associated with samples collected on 01/27/17.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits with the exception of matrix spike/matrix spike duplicate RPDs.

Matrix Spike/Matrix Spike Duplicate

An MS/MSD was performed on sample MW-513BR-0117 and the RPD was outside of QC limits for benzo(a)pyrene. An MS/MSD was also performed on sample MW-507BR-0117 and the RPD was outside of QC limits for indeno(1,2,3-cd)pyrene.

Action: The benzo(a)pyrene result in sample MW-513BR-0117 and the indeno(1,2,3-cd)pyrene result in sample MW-507BR-0117 were considered non-detect with estimated reporting limits and flagged "UJ".

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/06/17
Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701O62

Reviewer/Date: D. Howard 02/08/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and a trip blank for a level II review. These samples were analyzed for select VOCs. Associated samples include: MW-513BR-0117, MW-513BR-0117-MS/MSD, MW-315-0117, MW-408S-0117, MW-408DR-0117, MW-507BR-0117, MW-507BR-0117-MS/MSD. Trip blank TB-03-0117 in SDG 1701O61 is associated with samples collected on 01/26/17 and trip blank TB-04-0117 in SDG 1701O63 is associated with samples collected on 01/27/17.



Case Narrative and COC Completeness Review

Cooler temp: 1.3, 1.6, 4.0, 2.9°C



Holding times met

Collected: 01/26/17, 1/27/17

Anal: 02/02/17



QC Blanks Review

MB- 237356 = ND

TB-03-0117= ND from SDG 1701O61

TB-04-0117 = ND from SDG 1701O63



Laboratory Control Sample (LCS) recovery within limits

LCS- 237356 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicates analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001AMS/MSD (MW-513BR-0117)

Benzene 93.7%, 95.5% RPD = 1.94

Toluene 100%, 103% RPD = 2.82

Trichloroethene 96.7, 96.9% RPD = 0.277

All % Recoveries and RPDs within limits.

1701O62-005AMS/MSD (MW507BR-0117)

Benzene 101, 97.6% RPD = 3.23

Toluene 108, 106% RPD = 1.76

Trichloroethene 101, 98.3% RPD = 2.95

All % Recoveries and RPDs within limits

1701O63-005AMS/MSD (MW-320-0117)
Benzene 101%, 101% RPD = 0.257
Toluene 109%, 111% RPD = 1.70
Trichloroethene 102, 104% RPD = 0.277
All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701O62

Reviewer/Date: D. Howard 02/8/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-513BR-0117, MW-513BR-0117-MS/MSD, MW-315-0117, MW-408S-0117, MW-408DR-0117, MW-507BR-0117, MW-507BR-0117-MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 1.3, 1.6, 4.0, 2.9°C



Holding times met

Collected: 01/26/17, 01/27/17

Prep. Date: 01/31/17

Anal: 02/01/17, 02/02/17



QC Blanks Review

MB-237158= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237158– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001BMS/MSD (*MW-513BR-0117*)

Benz(a)pyrene 102%/54.6% RPD = **60.6% outside limit**

Parent sample results for benzo(a)pyrene was flagged “**UJ**” as non-detect. All other results were within limits

1701O62-005BMS/MSD (*MW-507BR-0117*)

Indeno(1,2,3-cd)pyrene 62.9%/78.3, RPD = **21.9% outside limit**

Parent sample results for indeno(1,2,3-cd)pyrene was flagged “**UJ**” as non-detect. All other results were within limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701O62

Reviewer/Date: D. Howard 02/08/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti, V, and Zn. Associated samples include: MW-513BR-0117, MW-513BR-0117-MS/MSD, MW-315-0117, MW-408S-0117, MW-408DR-0117, MW-507BR-0117, MW-507BR-0117-MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 1.3, 1.6, 4.0, 2.9°C



Holding times met

Collected: 01/26/17, 1/27/17

Prep Date: 01/31/17

Analyzed: 02/01/17, 02/03/17



QC Blanks Review

MB-237235 = ND

MB-237239 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237235 – All % Rec OK

LCS-237239 – All %Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed in this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001CMS/MSD (MW513BR-0117)

All % Rec and RPDs OK

1701O62-005CMS/MSD (MW-507BR-0117)

All % Rec and RPDs OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701O62

Reviewer/Date: D Howard 02/9/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-513BR-0117, MW-513BR-0117-MS/MSD, MW-315-0117, MW-408S-0117, MW-408DR-0117, MW-507BR-0117, MW-507BR-0117-MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 1.3, 1.6, 4.0, 2.9°C



Holding times met

Collected: 01/26/17, 1/27/17

Prep. Date: 02/02/17

Anal: 02/02/17



QC Blanks Review

MB-237317 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237317 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001CMS/MSD MW-513BR-0117

Hg = 100%/101% RPD – 0.996

1701O62-001CMS/MSD MW-507BR-0117

Hg = 106%/104% RPD – 1.40

1701O63-001CMS/MSD (MW-320-0117)

Hg = 105%/104% RPD – 0.774



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701O62

Reviewer/Date: D. Howard 02/6/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-513BR-0117, MW-513BR-0117-MS/MSD, MW-315-0117, MW-408S-0117, MW-408DR-0117, MW-507BR-0117, MW-507BR-0117-MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 1.3, 1.6, 4.0, 2.9°C



Holding times met

Collected: 01/26/17, 01/27/17

Prep. Date: 01/31/17, 02/01/17

Anal: 01/31/17, 02/01/17



QC Blanks Review

MB-237285 = ND

MB-237286 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237285 – All % Rec OK

LCS-237286 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001DMS/MSD (MW-513BR-0117)

Cyanide = 93.2%/103% RPD = 9.80 OK

1701O62-003DMS/MSD (MW-408S-0117)

Cyanide = 77.2%/79.2% RPD = 2.56 OK

1701O62-005DMS/MSD (MW-507BR-0117)

Cyanide = 91.6%/99.2% RPD = 7.97 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative

Project: Atlanta Gas Light

Amec Foster Wheeler Project Number: 6122150235.03.****

Site: Augusta, GA

Matrix: Groundwater

AES SDG No: 1701063

Introduction

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water and QC samples:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>	<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
TB-04-0117	01/27/17	II	MW-319-0117	01/27/17	II
MW-401SAP-0117	01/27/17	II	MW-320-0117	01/27/17	II
MW-500BR-0117	01/27/17	II	MW-320-0117MS/MSD	01/27/17	II

These samples were collected on January 27, 2017. Sample TB-04-0117 is a trip blank.

VOCs (SW8260B)

The samples in this SDG including the trip blank were submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The samples in this SDG were submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits.

Metals (SW6020B)

The samples in this SDG were submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The samples in this SDG were submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The samples in this SDG were submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/15/17

Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1701O63

Reviewer/Date: D. Howard 02/15/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples and a trip blank for a level II review. These samples were analyzed for select VOCs. Associated samples include: TB-04-0117, MW-401SAP-0117, MW-500BR-0117, MW-319-0117, MW-320-0117 and MW-320-0117MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 1.6°C



Holding times met

Collected: 1/27/17

Anal: 02/02/17



QC Blanks Review

MB- 237356 = ND

TB-04-0117 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS- 237356 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicates analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001AMS/MSD (MW-513BR-0117)

Benzene 93.7%, 95.5% RPD = 1.94

Toluene 100%, 103% RPD = 2.82

Trichloroethene 96.7, 96.9% RPD = 0.227

All % Recoveries and RPDs within limits.

1701O62-005AMS/MSD (MW507BR-0117)

Benzene 101, 97.6% RPD = 3.23

Toluene 108, 106% RPD = 1.76

Trichloroethene 101, 98.3% RPD = 2.95

All % Recoveries and RPDs within limits

1701O63-005AMS/MSD (MW-320-0117)
Benzene 101%, 101% RPD = 0.257
Toluene 109%, 111% RPD = 1.70
Trichloroethene 102, 104% RPD = 1.63
All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1701O63

Reviewer/Date: D. Howard 02/15/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for PAHs. Associated samples include: MW-401SAP-0117, MW-500BR-0117, MW-319-0117, MW-320-0117 and MW-320-0117MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 1.6°C



Holding times met

Collected: 01/27/17

Prep. Date: 01/30/17

Anal: 02/01/17, 02/02/17



QC Blanks Review

MB-237121= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237121– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O63-005BMS/MSD (*MW-320-0117*)

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1701O63

Reviewer/Date: D. Howard 02/15/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti, V, and Zn. Associated samples include: MW-401SAP-0117, MW-500BR-0117, MW-319-0117, MW-320-0117 and MW-320-0117MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 1.6°C



Holding times met

Collected: 1/27/17

Prep Date: 01/30/17

Analyzed: 01/31/17, 02/01/17, 02/02/17



QC Blanks Review

MB-237133 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237133 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed in this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O63-005CMS/MSD (MW-320-0117)



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1701O63

Reviewer/Date: D Howard 02/15/17 **Senior Reviewer/Date:** D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for mercury. Associated samples include: MW-401SAP-0117, MW-500BR-0117, MW-319-0117, MW-320-0117 and MW-320-0117MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 1.6°C



Holding times met

Collected: 01/26/17, 1/27/17

Prep. Date: 02/02/17

Anal: 02/02/17



QC Blanks Review

MB-237317 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237317 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001CMS/MSD (MW-513BR-0117)

Hg = 100%/101% RPD – 0.996

1701O62-005CMS/MSD (MW-507BR-0117)

Hg = 106%/104% RPD – 1.40

1701O63-001CMS/MSD (MW-320-0117)

Hg = 105%/104% RPD – 0.774



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1701O63

Reviewer/Date: D. Howard 02/15/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. These samples were analyzed for cyanide. Associated samples include: MW-401SAP-0117, MW-500BR-0117, MW-319-0117, MW-320-0117 and MW-320-0117MS/MSD



Case Narrative and COC Completeness Review

Cooler temp: 2.9, 1.6°C



Holding times met

Collected: 01/27/17

Prep. Date: 02/01/17

Anal: 02/01/17



QC Blanks Review

MB-237297 = ND

MB-237299 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237297 – All % Rec OK

LCS-237299 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-005DMS/MSD (MW-507BR-0117)

Cyanide = 91.6%/99.2% RPD = 7.97 OK

1701O63-005DMS/MSD (MW-320-0117)

Cyanide = 91.6%/91.2% RPD = 0.438 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

January 2017 Data Evaluation Narrative

Project: Atlanta Gas Light

Amec Foster Wheeler Project Number: 6122150235.03.****

Site: Augusta, GA

Matrix: Groundwater

AES SDG No: 1702054

Introduction

A data quality evaluation (DQE) was performed on the data reported for the groundwater sampling event conducted at the Atlanta Gas Light (AGL) facility located in Augusta, Georgia in January 2017. The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, reporting limits, method blanks, laboratory control samples, surrogate recoveries (where applicable), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory and field duplicate RPDs, and trip, field, and/or equipment blanks. Data were reviewed using precision and accuracy control limits presented in the laboratory's QAPP. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and data report match.

DQE data qualifications were applied if necessary in accordance with procedures in USEPA guidelines (USEPA, 2008/2011), the method, and professional judgment using the following qualifiers:

J = The reported concentration is considered an estimated value.

No qualification of the results was necessary.

Deliverables

The data package as submitted to Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler, formerly AMEC) are complete for USEPA Methods SW8260B, SW8270D-SIM, SW6020B, SW7470A, and SW9014.

Sample Integrity

Samples within this SDG were submitted to Analytical Environmental Services (AES) in Atlanta, Georgia for select volatile organic compounds (VOCs) by USEPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8270D - selective ion monitoring (SIM), metals [antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper

Amec Foster Wheeler Environment & Infrastructure, Inc.

(Cu), lead (Pb), nickel (Ni), selenium (Se), thallium (Tl) vanadium (V), and zinc (Zn)] by USEPA Method SW6020B, mercury by USEPA Method 7470A, and cyanide by USEPA Method 9014.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following water sample:

<u>Sample ID</u>	<u>Sample Date</u>	<u>DQE Level</u>
MW-308BR-0117	01/31/17	II

This sample was collected on January 31, 2017. No trip blank was associated with this sample.

VOCs (SW8260B)

The sample in this SDG was submitted to AES for VOC analysis by Method 8260B. The Level II components were within laboratory QC limits.

PAHs (SW8270-SIM)

The sample in this SDG was submitted to AES for PAH analysis by Method 8270D-SIM. The Level II components were within laboratory QC limits.

Metals (SW6020B)

The sample in this SDG was submitted to AES for metals analysis (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl, V, and Zn) by Method SW6020B. The Level II components were within laboratory QC limits.

Mercury (SW7470A)

The sample in this SDG was submitted to AES for mercury analysis by Method SW7470A. The Level II components were within laboratory QC limits.

Cyanide (SW9014)

The sample in this SDG was submitted to AES for cyanide analysis by Method SW9014. The Level II components were within laboratory QC limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and no DQE flags were modified based on professional judgment.

References

USEPA, 2008/2011. Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services. Prepared by the Region 4, United States Environmental Protection Agency, Science and Ecosystem Support Division, August 2008 (organic), September 2011 (inorganic).

Prepared by/Date: DLH 02/16/17

Checked By/Date: DWK 02/17/17

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: VOCs by SW8260B

Laboratory and Lot: AES SDG: 1702054

Reviewer/Date: D. Howard 02/16/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater sample for a level II review. This sample was analyzed for select VOCs. Associated sample include: MW308BR-0117. No trip blank was associated with this sample



Case Narrative and COC Completeness Review

Cooler temp: 1.2°C



Holding times met

Collected: 01/31/17

Anal: 02/02/17



QC Blanks Review

MB- 237356 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS- 237356 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicates analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701O62-001AMS/MSD (MW-513BR-0117)

Benzene 93.7%, 95.5% RPD = 1.94

Toluene 100%, 103% RPD = 2.82

Trichloroethene 96.7, 96.9% RPD = 0.227

All % Recoveries and RPDs within limits.

1701O62-005AMS/MSD (MW507BR-0117)

Benzene 101, 97.6% RPD = 3.23

Toluene 108, 106% RPD = 1.76

Trichloroethene 101, 98.3% RPD = 2.95

All % Recoveries and RPDs within limits

1701O63-005AMS/MSD (MW-320-0117)

Benzene 101%, 101% RPD = 0.257

Toluene 109%, 111% RPD = 1.70

Trichloroethene 102, 104% RPD = 1.63

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: PAHs by SW8270D-SIM

Laboratory and Lot: AES SDG: 1702054

Reviewer/Date: D. Howard 02/16/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. This sample was analyzed for PAHs. Associated sample include: MW-308BR-0117



Case Narrative and COC Completeness Review

Cooler temp: 1.2°C



Holding times met

Collected: 01/31/17

Prep. Date: 02/06/17

Anal: 02/06/17



QC Blanks Review

MB-237435= ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237435– All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (30%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1702054-001BMS/MSD (MW-308BR-0117)

All % Recoveries and RPDs within limits.



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Metals by SW6020B

Laboratory and Lot: AES SDG: 1702054

Reviewer/Date: D. Howard 02/16/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. This sample was analyzed for Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti, V, and Zn. Associated sample include: MW-308BR-0117.



Case Narrative and COC Completeness Review

Cooler temp: 1.2°C



Holding times met

Collected: 1/31/17

Prep Date: 02/06/17

Analyzed: 02/08/17



QC Blanks Review

MB-237472 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237472 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed in this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1701P84-001CMS/MSD

All within QC limits



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Mercury by SW7470A

Laboratory and Lot: AES SDG: 1702054

Reviewer/Date: D Howard 02/16/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. This samples was analyzed for mercury. Associated sample include: MW-308BR-0117.



Case Narrative and COC Completeness Review

Cooler temp: 1.2°C



Holding times met

Collected: 1/31/17

Prep. Date: 02/06/17

Anal: 02/06/17



QC Blanks Review

MB-237440 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237440 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

No duplicate samples were analyzed with this SDG



Matrix Spike recoveries and RPDs within limits (if applicable)

1702373-001AMS/MSD

Hg = 105%/101% RPD – 0.210



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: AGL Augusta

Project No: 6122150235.03.****

Method: Cyanide by SW9014

Laboratory and Lot: AES SDG: 1702054

Reviewer/Date: D. Howard 02/16/17

Senior Reviewer/Date: D. Knaub 02/17/17

YES NO NA

COMMENTS

Includes groundwater samples for a level II review. This samples was analyzed for cyanide. Associated samples include: MW-308BR-0117.



Case Narrative and COC Completeness Review

Cooler temp: 1.2°C



Holding times met

Collected: 01/31/17

Prep. Date: 02/08/17

Anal: 02/08/17



QC Blanks Review

MB-237703 = ND



Laboratory Control Sample (LCS) recovery within limits

LCS-237703 – All % Rec OK



Lab Duplicate - Field Duplicate precision goals met (20%).

Lab duplicate 1702099-003BDUP RPD = 0%



Matrix Spike recoveries and RPDs within limits (if applicable)

1702054-001DMS/MSD (MW-308BR-0117)

Cyanide = 103%/104% RPD = 0.775 OK



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

APPENDIX E-1

SUMMARY OF HISTORICAL GROUNDWATER SAMPLING DATA – ALLUVIUM, GALLIARD, AND SAPROLITE MONITORING WELLS

Appendix E-1
Water Sampling Data - Alluvium, Gallia
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Notes:
 -- Not analyzed
 * - Not a HSRA regulated compound
 B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
 D - Analyte concentration reported from secondary dilution
 DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
 H - Holding time exceeded
 ISCO - *in-situ* chemical oxidation
 J - Estimated analyte concentration
 JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
 M (Organic) - Spike sample recovery outside control limits
 N - Spike sample recovery outside of control limits
 R - Sample data results rejected due to deficiencies in the ability to meet quality control standards
 RRS - Risk Reduction Standard
 < - Analyte not detected at referenced detection limit
 UJ - Analyte not detected; low method bias and/or matrix interference
 UN - Analyte not detected; spiked sample recovery outside of control limits
 UR - Analyte not detected; data rejected
 UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-12 (continued)														MW-17	
			7/13/2006	2/8/2006	1/16/2006	7/21/2005	1/19/2005	7/16/2004	7/17/2003	1/20/2003	7/9/2002	1/17/2002	1/02 DUP	7/17/2001	1/17/2001	1/01 DUP	10/4/2006	10/06 (RA)
			Post-ISCO			Pre-ISCO											Post-ISCO	
Field Parameters																		
Conductivity	*	mS/cm	0.836	--	--	--	--	--	--	--	--	--	--	--	--	--	0.527	--
Dissolved Oxygen (YSI)	*	mg/L	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	1.15	--
Oxidation Reduction Potential	*	mV	-79.6	--	--	--	--	--	--	--	--	--	--	--	--	--	130.1	--
pH	*	SU	5.19	--	--	--	--	--	--	--	--	--	--	--	--	--	5.94	--
Temperature	*	Celsius	22.79	--	--	--	--	--	--	--	--	--	--	--	--	--	21.08	--
Turbidity	*	NTU	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	3.54	--
Monitored Natural Attenuation Parameters																		
Carbon Dioxide	*	µg/L	480	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	*	mg/L	47.2	--	66.2	76.5	4.4	4.7	4.4	3.4	4.1	4.3	4.2	3.9	4.5	4.8	--	--
Iron, as Ferrous (Fe+2)	*	mg/L	49.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese, Total	*	mg/L	2.28	--	3.55	6.28	1.8	2.1	1.6	1.6	1.8	1.8 N	1.8 N	1.7	1.7	1.7	--	--
Manganese, Dissolved	*	mg/L	2.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methane	*	µg/L	1,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	*	mg/L	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen	*	mg/L	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, ammonia (as N)	*	mg/L	9.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	*	mg/L	0.5 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	*	mg/L	250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	*	mg/L	2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds																		
Acetone	4,000	µg/L	2,400	--	3,300 U	1,200 U	25,000 U	25,000 U	5,000 U	5,000 U	5,000 U	5,000 U	12,000 U	1,200 U	5,000 U	5,000 U	50 U	--
Benzene	5	µg/L	9,700	--	8,800	13,000	53,000	59,000	66,000	68,000 D	57,000 D	53,000 D	--	69,000 D	66,000 D	65,000 D	5 U	--
Carbon Disulfide	4,000	µg/L	20	--	330 U	50 U	1,000 U	1,000 U	200 U	200 U	200 U	200 U	500 U	50 U	200,000 U	200,000 U	5 U	--
Ethylbenzene	700	µg/L	630	--	700	1,500	4,600	4,400	5,200	4,800	4,200	5,200	5,700	6,000	6,400	6,200	5 U	--
Methylene Chloride	5	µg/L	5 U	--	330 U	250 U	5,000 U	5,000 U	1,000 U	1,000 U	1,000 U	1,000 U	2,500 U	250 U	68 JB	130 JB	5 U	--
Toluene	1,000	µg/L	2,900	--	1,900	4,000	18,000	19,000	21,000	14,000	13,000	14,000	15,000	21,000 D	18,000	17,000	5 U	--
Trichloroethylene	5	µg/L	5 U	--	330 U	50 U	1,000 U	1,000 U	200 U	38 J	200 U	200 U	500 U	50 U	200 U	200 U	5 U	--
Xylenes, total	2,000	µg/L	770	--	670 U	1,500	5,200	4,400	4,600	3,700 B	3,300	4,300	4,800	5,900	5,700	5,500	5 U	--
Semivolatile Organic Compounds																		
2-Methylnaphthalene	*	µg/L	--	--	270	260	470	380	510 J M	550 D	540	500	490	710	600	670	--	--
Acenaphthene	2,000	µg/L	22	--	44	10 U	10 U	200 U	88	99	100	92 J	90 J	110	100	110	10 U	--
Acenaphthylene	10	µg/L	10 U	--	22	26	10 U	200 U	89	64	67 J	10 U	0.2 U	110	88	98	10 U	--
Anthracene	10	µg/L	10 U	--	10	10 U	10 U	200 U	10 U	2.0 J	10 U	10 U	0.2 U	2.2 J	50 U	2.7 J	10 U	--
Benz(a)anthracene	0.1	µg/L	0.05 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	4.8 J	0.17 R	0.05 UJ
Benzo(a)pyrene	0.2	µg/L	0.05 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	0.23 R	0.05 UJ
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	0.25 R	0.1 UJ
Benzo(g,h,i)perylene	10	µg/L	10 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	5.7 J	4.8 J	10 U	--
Benzo(k)fluoranthene	10	µg/L	10 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	10 U	--
Chrysene	0.2	µg/L	0.05 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	4.3 J	4.2 J	0.15 R	0.05 UJ
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	--	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	5.2 J	0.32 R	0.1 UJ
Dibenzofuran	1	µg/L	--	--	50 U	10 U	10 U	200 U	10 U	6.0 J	6.2 J	5.3 J	0.2 U	7.2 J	6.5 J	7.5 J	--	--
Fluoranthene	1,000	µg/L	10 U	0.0008 U	16	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	10 U	--
Fluorene	1,000	µg/L	17	--	31	12	10 U	200 U	24	23	22 J	10 U	0.2 U	29 J	28 J	30 J	10 U	--
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	--	10,000 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	0.31 R	0.05 UJ
Naphthalene	20	µg/L	2,900	--	2,000	2,300	6,700	5,900	12,000 J M	7,600 D	8,900 D	8,600 D	8,700 D	10,000 D	10,000 D	11,000 D	10 U	--
Phenanthrene	10	µg/L	18	--	47	12	10 U	200 U	17	16	18 J	15 J	15 J	19 J	20 J	22 J	10 U	--
Pyrene	1,000	µg/L	10 U	0.0008 U	14	10 U	10 U	200 U	10 U	10 U	10 U	10 U	0.2 U	50 U	50 U	50 U	10 U	--
Inorganic Compounds																		
Aluminum (fume or dust)	*	mg/L	--	--	1.81	1.75	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.043 BN	0.2 U	0.2 U	--	--
Antimony	0.01	mg/L	0.02 U	--	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0052 B	0.02 U	0.0053 B	0.0052 B	0.02 U	--
Arsenic	0.05	mg/L	0.05 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0039 B	0.01 U	0.0056 B	0.01 U	0.01 U	0.05 U	--
Barium	2	mg/L	0.0631	--	0.2 U	0.0699	0.69	0.7	0.64	0.63	0.65	0.67	0.66	0.64	0.64	0.62	0.0453	--
Beryllium	0.004	mg/L	0.0266	--	0.0318	0.0278	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.00091 B	0.00089 B	0.004 U	0.0022 B	0.0022 B	0.01 U	--
Cadmium	0.005	mg/L	0.005 U	--	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--
Calcium metal	*	mg/L	--	--	74.7	132	50	57	44	47	50	50	50	47	45	46	--	--
Chromium	0.1	mg/L	0.0386	--	0.0692	0.219	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.04	0.01 U	--
Cobalt	*	mg/L	--	--	0.579	0.537	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--
Copper	1.3	mg/L	0.01 U	--	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0016 B	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	--
Cyanide	0.2	mg/L	0.011	--	0.01 U	0.01 U	0.049	0.055	0.015 U	0.038	0.051	0.05	0.039	0.06	0.023	0.024	0.01 U	--
Lead	0.015	mg/L	0.01 U	--	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0032 B	0.0025 B	0.01 U	--
Magnesium	*	mg/L	--	--	52.1	87.5	40	45	40	38	40	41	41	38	37	37	--	--
Mercury	0.002	mg/L	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.00015 B	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	--
Nickel	0.1	mg/L	0.146	--	0.262	0.063	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.017 B	0.02 U	--
Potassium	*	mg/L	--	--	7.09	6.45	1.9	1.9	2	1.8	1.8	2 N	2 N	1.8	2.0	2.0	--	--
Selenium	0.05	mg/L	0.02 U	--	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0047 B	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	--
Sodium	*	mg/L	--	--	24.3	27.3	34	37	36	33	32	31	31	32	30	30	--	--
Thallium	0.002	mg/L	0.001 U	--	0.001 U	0.002 U	0.001 U	0.002 U	0.002 U	0.002 UWN	0.002 UJ	0.002 U	0.002 U	0.002 UN	0.002 U	0.002 U	0.001 U	--
Vanadium (fume or dust)	0.2	mg/L	0.0174	--	0.0303	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--
Zinc	2	mg/L	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	--

Notes:

-- - Not analyzed

* - Not a HSRA regulated compound

B (Inorganics) - Estimated analyte concentration

Bold - analyte detected

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

D - Analyte concentration reported from secondary dilution

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

H - Holding time exceeded

ISCO - *in-situ* chemical oxidation

J - Estimated analyte concentration

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits

M (Organic) - Spike sample recovery outside control limits

N - Spike sample recovery outside of control limits

R - Sample data results rejected due to deficiencies in the ability to meet quality control standards

RRS - Risk Reduction Standard

< U - Analyte not detected at referenced detection limit

UJ - Analyte not detected; low method bias and/or matrix interference

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-24		MW-25																					
			7/15/2010	10/4/2006	7/22/2009	1/13/2009	7/16/2008	1/8/2008	7/10/2007	2/14/2007	7/13/2006	1/11/2006	7/19/2005	1/19/2005	7/14/2004	1/21/2004	7/17/2003	1/20/2003	7/17/2002	1/22/2002	7/13/2001	7/13/2001	1/23/2001			
			Post-ISCO		Post-ISCO										Pre-ISCO											
Field Parameters																										
Conductivity	*	mS/cm	0.501	0.52	0.820	4.52	0.848	0.839	0.731	0.89	0.83	--	--	--	--	--	--	--	--	--	--	--	--	--		
Dissolved Oxygen (YSI)	*	mg/L	3.82	0.13	1.31	5.82	0.45	0.39	0.32	1.48	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--		
Oxidation Reduction Potential	*	mV	169	25.2	-274.1	130.7	6.9	42.1	69.3	54.3	51.8	--	--	--	--	--	--	--	--	--	--	--	--	--		
pH	*	SU	6.36	6.34	5.84	0.437	5.71	5.79	5.64	5.71	5.80	--	--	--	--	--	--	--	--	--	--	--	--	--		
Temperature	*	Celsius	23.48	24.05	22.61	17.94	22.26	22.04	22.45	18.14	22.14	--	--	--	--	--	--	--	--	--	--	--	--	--		
Turbidity	*	NTU	8.79	0.47	1.64	1.7	2.79	0.95	0.00	0.73	3.16	--	--	--	--	--	--	--	--	--	--	--	--	--		
Monitored Natural Attenuation Parameters																										
Carbon Dioxide	*	µg/L	850 JB	--	1,700 *	1,100	1,700	< 1000	< 1000	--	1,500	--	--	--	--	--	--	--	--	--	--	--	--	--		
Iron	*	mg/L	--	--	--	--	--	--	--	--	2.97	1.82	2.65	2.4	2.4	4.9	2.1	2.6	2.6	3.9	3.0	3.0	2.9			
Iron, as Ferrous (Fe+2)	*	mg/L	< 0.10 HF	--	2.3 HF	0.62 HF	3.9	4.84	4.22	2.78	2.46	--	--	--	--	--	--	--	--	--	--	--	--			
Manganese, Total	*	mg/L	--	--	--	--	--	--	--	--	1.13	0.756	0.825	0.77	0.94	0.99	1.1	0.94	1.1	1.1	0.97	0.98	0.83			
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	0.965	--	--	--	--	--	--	--	--	--	--	--	--			
Methane	*	µg/L	< 0.19	--	3.1	0.87	1.2	1.6	2.5	1.9	2	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrate	*	mg/L	5.8	--	< 1.1	0.077	< 0.50	< 0.25	0.37	< 0.25	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--	--			
Oxygen	*	mg/L	1.6	--	1.1	1.1	1.1	1.9	2.5	2.1	3	--	--	--	--	--	--	--	--	--	--	--	--			
Sulfate	*	mg/L	83	--	100	38	110	140	120	120	170	--	--	--	--	--	--	--	--	--	--	--	--			
Sulfide	*	mg/L	--	--	--	--	--	--	--	--	2 U	--	--	--	--	--	--	--	--	--	--	--	--			
Volatile Organic Compounds																										
Acetone	4,000	µg/L	< 100	50	< 100	< 100	< 100	< 50	< 50	< 50 U	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U			
Benzene	5	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J			
Carbon Disulfide	4,000	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Ethylbenzene	700	µg/L	< 5.0	5	< 5.0	< 5.0	0.5 J	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Methylene Chloride	5	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.37 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			
Toluene	1,000	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Trichloroethylene	5	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Xylenes, total	2,000	µg/L	< 5.0	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			
Semivolatile Organic Compounds																										
2-Methylnaphthalene	*	µg/L	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	1,500			
Acenaphthene	2,000	µg/L	< 0.20	10	< 0.19	< 0.19	0.062 J	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	140			
Acenaphthylene	10	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.28	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	6.2 J			
Anthracene	10	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	23 J			
Benz(a)anthracene	0.1	µg/L	< 0.20	0.05	< 0.19	< 0.19	< 0.19	< 0.050	< 0.05	< 0.05	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Benzo(a)pyrene	0.2	µg/L	< 0.20	0.05	< 0.19	< 0.19	< 0.19	< 0.050	< 0.05	< 0.05	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Benzo(b)fluoranthene	0.2	µg/L	< 0.20	0.1	< 0.19	< 0.19	< 0.19	< 0.10	< 0.1	< 0.1	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Benzo(g,h,i)perylene	10	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Benzo(k)fluoranthene	10	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Chrysene	0.2	µg/L	< 0.20	0.05	< 0.19	< 0.19	< 0.19	< 0.050	< 0.05	< 0.05	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.20	0.1	< 0.19	< 0.19	< 0.19	< 0.10	< 0.1	< 0.1	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Dibenzofuran	1	µg/L	--	--	--	--	--	--	--	--	--	0.001 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	40 J			
Fluoranthene	1,000	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	13 J			
Fluorene	1,000	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	76			
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.20	0.05	< 0.19	< 0.19	< 0.19	< 0.050	< 0.05	< 0.05	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U			
Naphthalene	20	µg/L	< 0.20	10	< 0.19	0.089 J	3.1	< 10	< 10	< 10	10 U	0.24	1.3	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10,000 D			
Phenanthrene	10	µg/L	< 0.20	10	< 0.19	0.031 J	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	67			
Pyrene	1,000	µg/L	< 0.20	10	< 0.19	< 0.19	< 0.19	< 10	< 10	< 10	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	14 J			
Inorganic Compounds																										
Aluminum (fume or dust)	*	mg/L	--	--	--	--	--	--	--	--	--	0.2 U	0.266	0.2 U	0.2 U	0.66	0.2 U	0.2 U	0.04 B	0.2 U	0.047 B	0.048 B	0.039 B			
Antimony	0.01	mg/L	< 0.020	0.02	< 0.020	< 0.020	< 0.020	< 0.0200	< 0.02	< 0.02	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
Arsenic	0.05	mg/L	< 0.020	0.05	< 0.020	< 0.010	< 0.010	< 0.0500	< 0.05	< 0.05	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0036 B	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U			
Barium	2	mg/L	0.073	0.0821	0.18	0.16	0.21	0.166	0.214	0.224	0.198	0.231	0.238	0.23	0.26	0.26	0.29	0.32	0.33	0.35	0.32	0.33	0.31			
Beryllium	0.004	mg/L	< 0.0040	0.01	< 0.0040	< 0.0040	< 0.0040	< 0.0100	< 0.010	< 0.01	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U			
Cadmium	0.005	mg/L	< 0.0050	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.005	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U			
Calcium metal	*	mg/L	--	--	--	--	--	--	--	--	--	40.1	45.5	38	44	47	51	50	56	56	53	53	47			
Chromium	0.1	mg/L	< 0.010	0.01	< 0.010	< 0																				

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-201		MW-202DR																
			10/4/2006	7/9/2002	1/25/2017	7/28/2016	1/20/2016	7/28/2015	1/13/2015	7/17/2014	1/7/2014	7/9/2013	1/8/2013	7/24/2012	1/16/2012	7/5/2011	01/11 DUP	1/17/2011	7/13/2010	1/5/2010	2/15/2007
			Post-ISCO	Pre-ISCO	Post-ISCO																
Field Parameters																					
Conductivity	*	mS/cm	670	--	0.578	0.555	0.511	580	0.524	0.518	0.420	0.549	0.557	0.53	0.642	0.641	2.26	2.26	0.582	0.716	1.542
Dissolved Oxygen (YSI)	*	mg/L	0.16	--	0.22	0.1	0.21	0.28	1.29	0.2	4.17	0.23	0.70	0.02	0.82	1.20	6.43	6.43	2.44	8.29	12.98
Oxidation Reduction Potential	*	mV	18.6	--	102.3	63.5	-86.4	285.3	-16.1	48.1	61.4	101.6	126.0	92.5	75.9	136.8	126.5	126.5	122.3	12.3	138.7
pH	*	SU	6.27	--	6.15	6.36	6.87	6.31	6.13	6.33	6.32	5.91	6.31	6.08	6.20	6.22	0.537	0.537	6.13	6.1	5.95
Temperature	*	Celsius	23.14	--	20.19	20.5	20.21	30.7	16.5	21.6	15.02	23.67	19.36	23.7	19.70	23.09	16.83	16.83	22.25	18.92	19.48
Turbidity	*	NTU	0.99	--	1.54	2.06	1.25	1.54	1.74	3.98	1.51	9.38	7.90	8.53	4.50	60.9	9.24	9.24	8.54	8.02	1.76
Monitored Natural Attenuation Parameters																					
Carbon Dioxide	*	µg/L	--	--	--	--	--	--	196	234	324	219	100	120	1,300 B	1,500 B	1,000 *	1,100 *	1,300	1,500	--
Iron	*	mg/L	--	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	--	--	< 0.100	< 0.100	<0.100	<0.100	< 0.10 HF	< 0.10 HF	< 0.025 HF	< 0.025 HF	< 0.025 HF	< 0.025 HF	< 0.10 HF	< 0.10 HF	< 0.1
Manganese, Total	*	mg/L	--	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methane	*	µg/L	--	--	--	--	--	--	< 4	< 4	<4	<4	< 0.58	76	< 0.29	0.36 J	0.20	< 0.19	0.22	0.33	4.5
Nitrate	*	mg/L	--	--	--	--	--	--	0.31	< 0.25	<0.25	0.25	0.82	0.24 J	0.25	0.84 J	0.90 J	0.63 JH	< 1.1	< 0.25	
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	*	mg/L	--	--	--	--	--	--	8.27 H	5.25 H	7.58 H	6.92 H	6.3	6.3	1.4	1.6	1.5	1.3	1.4	1.7	36
Sulfate	*	mg/L	--	--	--	--	--	--	56	61	64	67	68	72	75	80	79	78	76	98	340
Sulfide	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds																					
Acetone	4,000	µg/L	< 50	< 25	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 100	< 50
Benzene	5	µg/L	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.25	< 0.25	< 0.25	< 0.25	< 5.0	< 5.0	< 5
Carbon Disulfide	4,000	µg/L	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60	< 0.60	< 0.60	< 5.0	< 5.0	< 5
Ethylbenzene	700	µg/L	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.11	< 0.11	< 0.11	< 0.11	< 5.0	< 5.0	< 5
Methylene Chloride	5	µg/L	< 5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 0.11	< 5.0	< 5.0	< 5
Toluene	1,000	µg/L	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.33	< 0.33	< 0.33	< 0.33	< 5.0	< 5.0	< 5
Trichloroethylene	5	µg/L	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13	< 0.13	< 5.0	< 5.0	< 5
Xylenes, total	2,000	µg/L	< 5	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 5.0	< 5
Semivolatile Organic Compounds																					
2-Methylnaphthalene	*	µg/L	--	< 10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	2,000	µg/L	< 10	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Acenaphthylene	10	µg/L	< 10	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Anthracene	10	µg/L	< 10	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Benz(a)anthracene	0.1	µg/L	< 0.05	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 0.05
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 0.05
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 0.1
Benzo(g,h,i)perylene	10	µg/L	< 10	< 10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Benzo(k)fluoranthene	10	µg/L	< 10	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	0.060	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Chrysene	0.2	µg/L	< 0.05	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.044	< 0.043	< 0.048	< 0.048	< 0.19	< 0.19	< 0.05
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.1	< 10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 0.1
Dibenzofuran	1	µg/L	--	< 10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1,000	µg/L	< 10	< 10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Fluorene	1,000	µg/L	< 10	< 10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.05	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	0.065	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 0.05
Naphthalene	20	µg/L	< 10	< 10	3.9	< 0.5	< 0.5	< 0.5	2.7	< 0.50	< 0.50	< 0.50	< 0.19	< 0.19	1.2	< 0.095	< 1.0	0.24	< 0.19	< 0.19	< 10
Phenanthrene	10	µg/L	< 10	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.50	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Pyrene	1,000	µg/L	< 10	< 10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.19	< 0.097	< 0.095	< 0.11	< 0.11	< 0.19	< 0.19	< 10
Inorganic Compounds																					
Aluminum (fume or dust)	*	mg/L	--	0.042 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	0.01	mg/L	< 0.02	< 0.02	< 0.006	< 0.006	< 0.006	< 0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.020	< 0.020	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.020	< 0.020	< 0.02
Arsenic	0.05	mg/L	< 0.05	< 0.01	< 0.05	< 0.05	< 0.05	< 0.05	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.020	< 0.020	< 0.0046	< 0.0046	< 0.0046	< 0.0046	< 0.020	< 0.020	< 0.05
Barium	2	mg/L	0.0647	0.084	0.064	0.0722	0.069	0.0619	0.0536	0.0549	0.0541	0.0519	0.050	0.055	0.062	0.062	0.061	0.059	0.054	0.05	0.104
Beryllium	0.004	mg/L	< 0.01	< 0.004	< 0.004	< 0.004	< 0.004	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0040	< 0.0040	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0040	< 0.0040	< 0.010
Cadmium	0.005	mg/L	< 0.005	< 0.0011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0												

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-203																															
			1/25/2017	7/28/2016	1/20/2016	7/29/2015	1/14/2015	7/15/2014	1/14/2014	7/10/2013	1/10/2013	7/24/2012	1/23/2012	7/5/2011	1/18/2011	7/13/2010	1/12/2010	7/22/2009	1/13/2009	7/23/2008	1/10/2008	8/21/2007**	7/12/2007	2/14/2007	7/13/2006	1/16/2006	7/22/2005	7/16/2004	1/24/2004	7/16/2003	7/17/2002	1/21/2002	1/17/2001	
			Post-ISCO																							Pre-ISCO								
Field Parameters																																		
Conductivity	*	mS/cm	0.483	0.46	0.443	469.1	0.224	0.454	0.339	0.475	0.343	0.570	0.505	0.550	1.55	0.475	0.564	0.882	16.94	0.871	0.517	0.759	0.818	0.94	0.863	--	--	--	--	--	--	--		
Dissolved Oxygen (YSI)	*	mg/L	0.3	0.07	0.48	0.22	1.72	0.57	0.58	0.41	5.39	0.51	3.42	1.67	6.20	1.98	15.27	19.69	5.68	0.97	3.20	3.9	10.34	11.99	21.49	--	--	--	--	--	--	--		
Oxidation Reduction Potential	*	mV	118.1	58.8	-91.3	82	69.3	-99.8	144.9	-80.2	87.9	81.6	13.9	102.0	7.0	111.1	35.7	189	377.4	140.1	59.2	161.3	152.6	137.2	149	--	--	--	--	--	--	--		
pH	*	SU	6.19	6.22	6.84	6.3	6.28	6.23	6.64	6.07	6.43	5.45	6.20	6.18	0.58	6.23	7.07	5.98	5.82	6.10	5.77	5.77	5.93	5.66	--	--	--	--	--	--	--	--		
Temperature	*	Celsius	20.06	20.81	19.93	24.4	15.6	22.92	19.11	20.21	18.30	26.92	16.54	21.85	19.41	23.63	16.1	23.18	19.61	22.18	20.90	23.34	21.77	21.35	--	--	--	--	--	--	--	--		
Turbidity	*	NTU	0.36	0.62	0.53	4.23	1.70	5.97	0.77	0.54	7.22	0.98	1.96	4.75	2.19	6.67	7.18	3.01	3.2	1.54	0.58	1.12	1.48	1.09	0.58	--	--	--	--	--	--	--	--	
Monitored Natural Attenuation Parameters																																		
Carbon Dioxide	*	µg/L	--	--	--	--	81.2	147	219	146	110	92	2,000 B	1,200 B	1,300	960	1,500	2,300 *	1,700	2,300	< 1000	--	< 1000	--	2,900	--	--	--	--	--	--	--	--	
Iron	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	0.361	0.903	0.068	0.087	0.09	0.13	--	0.039 B	0.089
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	< 0.100	< 0.100	< 0.100	0.802	0.28 HF	< 0.10 HF	0.45 HF	< 0.025 HF	0.73 HF	0.098 JHF	< 0.10 HF	< 0.10 HF	< 0.10 HF	< 0.10	< 0.10	--	< 0.10	< 0.1	0.1 U	--	--	--	--	--	--	--	--	
Manganese, Total	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.39	1.52	1.55	0.57	0.54	0.54	1.7	1.7	1.5	
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.15	--	--	--	--	--	--	--	--	
Methane	*	µg/L	--	--	--	--	< 4	270	< 4	9	5.8	4.2	10	0.57 J	19	0.47	2.1	0.31	1.1	0.54	2.6	--	2.9	4.5	5.8	--	--	--	--	--	--	--	--	
Nitrate	*	mg/L	--	--	--	--	0.51	< 0.25	0.32	0.49	< 0.25	< 0.25	0.10 J	0.30	0.81 J	5.6	3	4.7	2.3	5.7	2.9	--	2.9	3	3.1	--	--	--	--	--	--	--	--	
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.9	--	--	--	--	--	--	--	--	
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.45	--	--	--	--	--	--	--	--	
Oxygen	*	mg/L	--	--	--	--	9.08 H	7.17 H	6.34 H	7.55 H	6.9	6.9	1.2	2.0	1.4	1.2	1.8	1.6	1.5	1.0	2.0	--	12	11	18	--	--	--	--	--	--	--	--	
Sulfate	*	mg/L	--	--	--	--	13	58	59	62	80	61	69	67	67	57	86	120	120	90	140	--	95	96	120	--	--	--	--	--	--	--	--	
Sulfide	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2 U	--	--	--	--	--	--	--	--	--	
Volatile Organic Compounds																																		
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 50	< 50	< 50	< 100	< 100	< 100	< 100	< 100	< 50	< 50	--	< 50	50 U	10 U	420	25 U	25 U	25 U	25 U	25 U	25 U	
Benzene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.25	< 0.25	< 0.25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	2.7	62	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J		
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60 *	< 0.60	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Ethylbenzene	700	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.11	< 0.11	< 0.11	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	3.3 J B *	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.49 JB			
Toluene	1,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.33	< 0.33	< 0.33	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	1.0 U	44	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U		
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Xylenes, total	2,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	--	< 5	5 U	2.0 U	15	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		
Semivolatile Organic Compounds																																		
2-Methylnaphthalene	*	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	0.44	2.0 U	0.24	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 10	--	< 10	< 10	10 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Acenaphthylene	10	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 10	--	< 10	< 10	10 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Anthracene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 10	--	< 10	< 10	10 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Benz(a)anthracene	0.1	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 0.05	--	< 0.05	< 0.05	0.05 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Benzo(a)pyrene	0.2	µg/L	0.073	< 0.05	< 0.05	< 0.05	0.075	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 0.05	--	< 0.05	< 0.05	0.05 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 0.1	--	< 0.1	< 0.1	0.1 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Benzo(g,h,i)perylene	10	µg/L	0.16	< 0.1	< 0.1	< 0.1	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 10	--	< 10	< 10	10 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Benzo(k)fluoranthene	10	µg/L	0.092	< 0.05	< 0.05	< 0.05	0.068	< 0.050	< 0.050	< 0.050	< 0.050	< 0.19	< 0.22	< 0.10	< 0.12	< 0.11	< 0.19	< 0.19	< 0.19	< 0.19	< 10	--	< 10	< 10	10 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	10 U	
Chrysene	0.2	µg/L	0.055	< 0.05	< 0.05	< 0.05																												

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-205																												
			1/25/2017	7/27/2016	1/20/2016	7/16/2014	1/9/2014	1/10/2013	7/26/2012	1/25/2012	7/7/2011	1/20/2011	7/13/2010	1/12/2010	7/29/2009	1/21/2009	7/23/2008	1/10/2008	1/17/2006	7/22/2005	7/16/2004	1/24/2004	7/18/2003	4/4/2002	1/22/2002	01/02 DUP	7/17/2001	07/01 DUP	1/23/2001		
			Post-ISCO																Pre-ISCO												
Field Parameters																															
Conductivity	*	mS/cm	0.626	0.667	0.532	0.568	0.455	0.464	0.202	0.417	0.463	0.85	0.41	0.486	0.548	0.33	0.577	0.497	--	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Oxygen (YSI)	*	mg/L	0.08	0.13	0.22	0.23	0.39	0.36	0.25	1.04	0.28	5.44	0.23	1.37	1.18	5.96	0.61	1.03	--	--	--	--	--	--	--	--	--	--	--	--	
Oxidation Reduction Potential	*	mV	-73	-71.7	-96.6	-107.1	-103.4	18.1	-29.2	-57.8	-59.6	57.3	-109.7	8.15	-36.8	-27	-29.8	-60.1	--	--	--	--	--	--	--	--	--	--	--	--	
pH	*	SU	6.03	6.05	6.2	6.43	6.25	6.32	6.21	6.27	6.60	0.382	5.95	6.15	6.43	0.426	6.08	5.79	--	--	--	--	--	--	--	--	--	--	--	--	
Temperature	*	Celsius	20.46	23.8	19.39	22.24	18.74	21.13	21.81	20.56	24.56	17.03	21.64	15.94	23.08	19.82	26.48	22.91	--	--	--	--	--	--	--	--	--	--	--	--	
Turbidity	*	NTU	2.79	6.38	7.64	11.1	7.53	6.42	10.5	9.26	26.6	11.4	3.1	9.3	8	4.2	8.76	2.29	--	--	--	--	--	--	--	--	--	--	--	--	
Monitored Natural Attenuation Parameters																															
Carbon Dioxide	*	µg/L	--	--	--	342	332	140	140	2,800 B	380 B	2,300	2,600	1,900	2,100 *	2,300	3,000	< 1000	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54.8	34.2	0.34	0.46	0.19	--	1.1	1.2	0.36	0.52	0.49		
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	3.78	0.949	0.35 HF	0.29 HF	1.7 HF	0.045 J HF	1.9 HF	2.0 HF	0.33 HF	< 0.10 HF	0.50 HF	0.19	5.87	--	--	--	--	--	--	--	--	--	--	--		
Manganese, Total	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.46	3.8	1.7	1.7	1.6	--	1.5	1.6	1.4	1.4	1.5		
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Methane	*	µg/L	--	--	--	180	290	380	2000	230	260	250	130	520	310	250	300	490	--	--	--	--	--	--	--	--	--	--	--		
Nitrate	*	mg/L	--	--	--	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.075	< 0.36	< 1.1	< 1.1	< 1.1	< 0.050	0.20	< 0.25	--	--	--	--	--	--	--	--	--	--	--		
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Oxygen	*	mg/L	--	--	--	6 H	6.82 H	5.1	2.4	1.6	1.3	1.2	1.4	1.3	2.1	1.3	0.99	1.9	--	--	--	--	--	--	--	--	--	--	--		
Sulfate	*	mg/L	--	--	--	79	7.8	< 5.0	< 5.0	3.2 J	< 2.6	6.5	23	16	24	26	41	86	--	--	--	--	--	--	--	--	--	--	--		
Sulfide	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Volatile Organic Compounds																															
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 100	< 100	5.7 J	21 J	< 500	< 1000	< 10000	< 2000	< 2000	< 5000	150	2,000	5,400	< 2,500	< 2,500	< 1,300	--	< 1,200	< 1,200	< 620	< 1,200	< 1,200		
Benzene	5	µg/L	690	730	1000	1,100	3,100	4,300 D	3,300 D	6,600	12,000	8,900	5,600	12,000	7,500 D	2,700	5,500	8,300	6,500	5,500	4,100	3,500	3,300	6,400	6,400	6,000	5,500 D	6,500	7,700		
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60	< 60	< 500	< 500	< 100	< 100	< 250	< 5.0	< 200	< 200	< 100	< 100	< 50	--	< 50	< 50	< 50	< 50	< 50		
Ethylbenzene	700	µg/L	110	72	95	170	360	400 D	490 D	660	510 J	490 J	220	750	440	< 100	200 J	160	< 200	130	180	260	240	280	350	360	450	610	470		
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 100	< 50	< 500	< 100	260	< 250	< 5.0	< 200	< 100	< 500	< 500	< 250	< 250	< 250	< 250	< 0.12	< 250	55 JB		
Toluene	1,000	µg/L	130	90	120	77	99	940 D	1,100 D	1,500	4,300	1,400	340	2,200	1,300	650	1,600	2,800	5,100	4,300	2,500	2,400	2,400	5,800	6,700	6,400	6,700 D	8,400	8,100		
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 13	< 50	< 500	< 100	< 100	< 250	< 5.0	< 200	< 200	< 100	< 100	< 50	< 50	< 50	< 0.025	< 50	< 50	< 50		
Xylenes, total	2,000	µg/L	110	100	166	220	250	500 D	640 D	640	1,000	680	520	1,100	940	790	970	1,100	1,600	1,100	1,800	2,200	2,300	--	3,400	3,500	4,600	6,100	4,600		
Semivolatile Organic Compounds																															
2-Methylnaphthalene	*	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,200	2,500	760	1,200	820	--	--	1,100	1,200	1,400 D	1,200 D	1,200	
Acenaphthene	2,000	µg/L	9.1	8.0	< 50	12	14	< 22	11	11	2.6	6.8	5.2	3.1	< 10 *	< 38	2.5 J	< 10	< 27	< 30	< 200	< 160	20	42 J	23 J	23 J	27 J	26 J	26 J		
Acenaphthylene	10	µg/L	6.6	5.0	5.8	7.0	6.7	< 22	6.9	14	2.6	18	11	11	11	9.5 J	6.3	22	65	490	200	190	300	580	350	400	460	430	380		
Anthracene	10	µg/L	3.6	2.9	3.1	4.3	3.7	< 22	< 3.9	4.3	2.9	4.7	3.6	4.2	< 10	< 38	3.2 J	10	< 27	88	< 200	15	< 10	38 J	10 J	10 J	15 J	18 J	15 J		
Benz(a)anthracene	0.1	µg/L	0.92	0.42	0.55	2.5	1.3	< 22	< 3.9	1.5 J	2.1	1.7 J	1.2 J	3.4	< 10	< 38	0.52 J	0.78	< 27	86	< 200	3.8	< 10	20 J	< 200	< 100	6.1 J	9.3 J	3.2 J		
Benzo(a)pyrene	0.2	µg/L	0.33	0.064	0.16	1.8	0.73	< 22	< 3.9	0.64	< 1.1	1.4	1.1 J	< 1.9	2.9	< 10	< 38	< 3.9	0.16	< 27	55	< 200	4.2	< 10	14 J	< 200	< 100	3.3 J	5.6 J	< 50	
Benzo(b)fluoranthene	0.2	µg/L	0.27	0.1	0.19	1.7	0.59	< 22	< 3.9	< 1.1 *	0.86	< 1.0	< 1.9 *	2	< 10	< 38	< 3.9	0.20	< 27	49	< 200	4	< 10	10 J	< 200	< 100	2.7 J	0.43 J	< 50		
Benzo(g,h,i)perylene	10	µg/L	0.14	< 0.1	0.11	0.76	0.27	< 22	< 3.9	< 1.1	0.41	< 1.0	< 1.9	< 2.0	< 10	< 38	< 3.9	< 10	< 27	34	< 200	1.5	< 10	< 100	< 200	< 100	< 50	< 50	< 50		
Benzo(k)fluoranthene	10	µg/L	0.13	< 0.05	0.066	0.59	0.2	< 22	< 3.9	< 1.1	1.0	< 1.0	< 1.9	< 2.0	< 10	< 38	< 3.9	< 10	< 27	32	< 200	< 0.2	< 10	< 100	< 200	< 100	< 50	< 50	< 50		
Chrysene	0.2	µg/L	0.69	0.26	0.29	2	0.9	< 22	< 3.9	1.4 J	1.7	1.6 J	0.97 J	2.6	< 10	< 38	< 3.9	0.62	< 27	85	< 200	3.4	< 10	19 J	< 200	< 100	5.8 J	9.1 J	3.3 J		
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.1	< 0.1	< 0.1	0.19	< 0.10	< 22	< 3.9	< 1.1	0.18 J	< 1.0	< 1.9	< 2.0	< 10	< 38	< 3.9	< 0.10	< 27	< 30	< 200	< 0.2	< 10	< 100	< 200	< 100	< 50	< 50	< 50		
Dibenzofuran	1	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 130	50	< 200	< 160	12	--	14 J	16 J	1				

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-207																																		
			1/24/2017	7/26/2016	1/19/2016	7/27/2015	1/12/2015	7/17/2014	1/6/2014	7/8/2013	1/7/2013	7/24/2012	1/16/2012	7/5/2011 Post-HSCO	1/17/2011	7/14/2010	1/6/2010	7/27/2009	1/15/2009	7/15/2008	1/9/2009	7/10/2007	2/15/2007	7/11/2006	1/11/2006	7/21/2005	1/19/2005	7/16/2004	1/23/2004	7/20/2003 Pre-ISCO	1/20/2003	7/9/2002	1/17/2002	7/11/2001	1/18/2001		
Field Parameters																																					
Conductivity	*	ms/cm	0.406	0.333	0.546	504	0.513	0.492	0.492	0.532	0.524	0.628	0.523	0.616	0.13	0.603	0.586	0.672	1.01	0.635	0.709	0.531	0.709	0.646	--	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Oxygen (YSI)	*	mg/L	0.49	0.11	0.14	4	0.30	0.86	0.22	0.06	0.14	0.10	4.79	1.43	5.54	0.66	4.48	3.56	5.85	0.39	0.31	0.30	0.78	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxidation Reduction Potential	*	mV	-17.7	-36.9	-69.5	-50	-56.9	75.6	-67.9	-46.0	2.1	-39.4	170.6	-55.4	-14.8	-71.1	-48.9	-36.9	-35.4	-58	-61.8	-41.9	-47.9	-70.7	--	--	--	--	--	--	--	--	--	--	--	--	
pH	*	SU	6.13	6.02	6.88	6.25	6.05	6.2	6.12	6.28	6.32	5.47	2.48	5.65	0.5	6.02	5.98	6.18	0.589	6.03	6.03	6.10	6.05	6.04	--	--	--	--	--	--	--	--	--	--	--	--	
Temperature	*	Celsius	20.66	24.27	20.82	32.4	16.15	22.19	18.88	21.67	18.83	24.67	18.81	23.62	17.85	25.44	15.33	26.85	16.77	22.56	21.04	23.31	17.71	23.39	--	--	--	--	--	--	--	--	--	--	--	--	
Turbidity	*	NTU	2.19	3.01	3.09	12.4	2.17	0.57	1.59	7.78	0.53	2.13	2.41	9.6	NA	5.73	9.5	30	3.3	4.83	0.99	4.14	4.47	3.21	--	--	--	--	--	--	--	--	--	--	--	--	
Monitored Natural Attenuation Parameters																																					
Carbon Dioxide	--	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65.3	68.7	71	70	75	80	69	78	75	82	75	--	
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Manganese, Total	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.94	0.981	1.1	1.2	1.3	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.2	
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methane	*	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Nitrate	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Oxygen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfate	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfide	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Volatile Organic Compounds																																					
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 5.0	< 5.0	< 5.0	< 100	< 100	< 100	13.0 J	< 50	< 50	< 50	< 50	< 10	< 25	< 25	< 25	< 25	< 25	26	< 25	120	< 25	< 25	< 25		
Benzene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.25	< 0.25	< 0.25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Carbon Disulfide	4,000	µg/L	< 5.0	11	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60 *	< 0.60	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Ethylbenzene	700	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.11	< 0.11	< 0.11	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.23 J	< 1.0	< 1.0	< 1.0	< 1.0			
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	3.3 J B *	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0			
Toluene	1,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.33	< 0.33	< 0.33	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.65 J	< 1.0	< 1.0	< 1.0	< 1.0			
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
Xylenes, total	2,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	0.17 JB	< 2.0	< 2.0	< 2.0	< 2.0			
Semivolatile Organic Compounds																																					
2-Methylnaphthalene	*	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10	
Acenaphthene	2,000	µg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 10	< 10	< 10	< 10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10		
Acenaphthylene	10	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 10	< 10	< 10	< 10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10		
Anthracene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 10	< 10	< 10	< 10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10		
Benz(a)anthracene	0.1	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 0.050	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10		
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 0.050	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10		
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 0.10	< 0.1	< 0.1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 10	< 10	< 10	< 10			
Benzo(g,h,i)perylene	10	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.21	< 0.10	< 0.11	< 0.099	< 0.19	< 0.19	< 0.20	< 0.19	< 0.20	< 10	< 10	< 10	< 10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10	< 10	< 1					

Augusta, Georgia

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-214																																					
			1/25/2017	7/27/2016	1/20/2016	7/28/2015	1/13/2015	7/15/2014	1/9/2014	7/8/2013	1/8/2013	7/24/2012	1/16/2012	7/5/2011	1/17/2011	7/15/2010	1/5/2010	7/22/2009	1/14/2009	7/18/2008	1/8/2008	7/11/2007	2/15/2007	7/11/2006	1/15/2006	7/19/2005	7/13/2004	1/21/2004	7/15/2003	1/20/2003	7/11/2002	1/21/2002	7/13/2001	07/01 DUP	1/17/2001					
Post-ISCO													Pre-ISCO																											
Field Parameters																																								
Conductivity	*	mS/cm	0.292	0.291	0.261	300	0.226	0.203	0.171	0.206	0.308	0.305	0.327	0.206	2.24	0.243	0.214	0.249	0.65	0.252	0.230	0.229	0.237	0.214	--	--	--	--	--	--	--	--	--	--	--	--	--			
Dissolved Oxygen (YSI)	*	mg/L	0.27	0.29	0.32	0.45	0.45	0.89	0.37	0.44	0.53	0.14	0.74	0.73	6.88	0.41	3.38	2.59	6.75	0.49	0.62	0.28	0.46	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--			
Oxidation Reduction Potential	*	mV	-62	-30.2	-113.6	277.8	-73.5	-49.8	-74.0	-144.8	-61.5	-106.2	-144.2	-48.9	-62	-78	-44.6	-253.5	-76.8	-118	-90.9	-69.2	-85.3	-71	--	--	--	--	--	--	--	--	--	--	--	--	--			
pH	*	SU	6.75	6.37	7.89	6.85	6.51	6.34	6.76	6.79	6.65	6.45	6.81	6.36	0.254	6.68	6.9	12.81	0.24	6.66	6.71	6.80	6.8	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--			
Temperature	*	Celsius	20	23.09	19.67	27.6	16.6	21.45	20.82	22.67	17.32	25.62	17.77	24.38	16.97	23.8	16.51	26.37	19.15	24.23	20.72	24.61	18.94	22.99	--	--	--	--	--	--	--	--	--	--	--	--	--			
Turbidity	*	NTU	0.56	1.55	0.71	5.74	2.19	2.51	3.21	1.37	3.60	7.22	6.42	9.3	2.18	1.25	7.63	3.2	5.3	1.23	0.09	0.69	2.55	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--			
Monitored Natural Attenuation Parameters																																								
Carbon Dioxide	*	µg/L	--	--	--	--	108	101	125	107	28	40	380 B	300 B	220 *	310 JB	260	270 *	250	270	< 1000	< 1000	--	240	--	--	--	--	--	--	--	--	--	--	--	--	--			
Iron	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.09	2.04	1.55	1.4	2.6	4.5	0.46	0.99	2	1.8	1.8	1.8	1.7	--				
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	2.56	< 0.100	0.149 H	0.518 H	0.43 HF	2.0 HF	1.3 HF	0.41 HF	0.59 HF	1.1 HF	1.0 HF	1.0 HF	0.12 HF	1.4	2.48	2.41	2.17	1.87 H	--	--	--	--	--	--	--	--	--	--	--	--	--			
Manganese, Total	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.722	0.644	0.655	0.73	0.74	0.95	0.49	0.6	0.7	0.68	0.69	0.72	--	--				
Manganese, Dissolved	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.604	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Methane	*	µg/L	--	--	--	--	410	< 4	650	680	2,400	3,600	1,600	24	37	46	230	190	100	32	140	160	140	100	--	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrate	*	mg/L	--	--	--	--	< 0.25	0.42	< 0.25	< 0.25	< 0.25	< 0.25	< 0.075	< 0.075	< 0.36	< 1.1	< 1.1	< 1.1	< 0.050	< 0.50	< 0.25	< 0.25	< 0.25	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrogen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Oxygen	*	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sulfate	*	mg/L	--	--	--	--	7.17 H	7.95 H	5.55 H	6.75 H	5.0	3.7	1.2	1.7	2.2	1.5	1.4	1.3	1.3	2.0	1.8	1.8	2.8	1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Sulfide	*	mg/L	--	--	--	--	< 1.0	26	< 1.0	< 1.0	< 5.0	< 5.0	< 2.6	< 2.6	< 2.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	1.1	1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Volatile Organic Compounds																																								
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 5.0	< 5.0	< 5.0	< 100	< 100	< 100	< 100	< 50	< 50	< 50	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U			
Benzene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.25	< 0.25	0.49 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	0.2 J	0.21 J	0.29 J	--	--			
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60 *	< 0.80	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Ethylbenzene	700	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.11	< 0.11	0.12J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U	0.12 U	--				
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	3.3 J B *	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U				
Toluene	1,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.61 J	< 0.33	< 0.33	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
Xylenes, total	2,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5	< 5	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.32 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U				
Semivolatile Organic Compounds																																								
2-Methylnaphthalene	2,000	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U				
Acenaphthene	2,000	µg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.23	< 0.19	< 0.095	< 0.11	< 0.10	< 0.19	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	10 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			
Acenaphthylene	10	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.23	< 0.19	< 0.095	< 0.11	< 0.10	< 0.19	< 0.19	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	10 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			
Anthracene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.23	< 0.19	< 0.095	< 0.11	< 0.10	< 0.19	< 0.19	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	10 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			
Benz(a)anthracene	0.1	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.23	< 0.19	< 0.095	< 0.11	< 0.10	< 0.19	< 0.19	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	10 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.23	< 0.19	< 0.095	< 0.11	< 0.10	< 0.19	< 0.19	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	10 U	0.2 U	0.2 U	0.2 U														

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

ISCO - *in-situ* chemical oxidation

JB (Organic) - Estimated analyte concentration

M (Organic) - Spike sample recovery outside control limits

R - Sample data results rejected due to deficiencies

RRS - Risk Reduction Standard

<, U - Analyte not detected at re

UJ - Analyte not detected; low method bias and/or matrix effect

UN - Analyte not detected; spiked sample recovery outside of control limits

UR - Analyte not detected; data rejected

UWN - Analyte not detected; post digestion spike and spike sample recovery

© 2007 The Authors
Journal compilation © 2007 Blackwell Publishing Ltd

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-309SAP				
		Sample Date	1/16/2003	7/10/2002	1/16/2002	7/12/2001	1/24/2001
		Unit	Pre-ISCO				
Field Parameters							
Conductivity	*	mS/cm	--	--	--	--	--
Dissolved Oxygen (YSI)	*	mg/L	--	--	--	--	--
pH	*	SU	--	--	--	--	--
Oxidation Reduction Potential	*	mV	--	--	--	--	--
Temperature	*	Celsius	--	--	--	--	--
Turbidity	*	NTU	--	--	--	--	--
Monitored Natural Attenuation Parameters							
Carbon Dioxide	*	µg/L	--	--	--	--	--
Iron	*	mg/L	6.0	7.2	3.6	8.5	9.7
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	--
Manganese, Total	*	mg/L	1.1	1.1	1.5	1.2	1.2
Manganese, Dissolved	*	mg/L	--	--	--	--	--
Methane	*	µg/L	--	--	--	--	--
Nitrate	*	mg/L	--	--	--	--	--
Nitrogen	*	mg/L	--	--	--	--	--
Nitrogen, ammonia (as N)	*	mg/L	--	--	--	--	--
Oxygen	*	mg/L	--	--	--	--	--
Sulfate	*	mg/L	--	--	--	--	--
Sulfide	*	mg/L	--	--	--	--	--
Volatile Organic Compounds							
Acetone	4,000	µg/L	32	< 25	< 25	53	< 25
Benzene	5	µg/L	0.17 J	< 1.0	< 1.0	< 1.0	0.21 J
Carbon Disulfide	4,000	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	700	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	0.38 J
Toluene	1,000	µg/L	0.36 J	0.37 J	< 1.0	0.65 J	3.2
Trichloroethylene	5	µg/L	0.22 J	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, total	2,000	µg/L	< 2.0	< 2.0	< 2.0	< 2.0	0.57 J
Semivolatile Organic Compounds							
2-Methylnaphthalene	*	µg/L	< 10	0.36 J	< 13	< 10	< 10
Acenaphthene	2,000	µg/L	< 10	< 10	< 13	< 10	< 10
Acenaphthylene	10	µg/L	< 10	< 10	< 13	< 10	< 10
Anthracene	10	µg/L	< 10	< 10	< 13	< 10	< 10
Benzo(a)anthracene	0.1	µg/L	< 10	< 10	< 13	< 10	< 10
Benzo(a)pyrene	0.2	µg/L	< 10	< 10	< 13	< 10	< 10
Benzo(b)fluoranthene	0.2	µg/L	< 10	< 10	< 13	< 10	< 10
Benzo(g,h,i)perylene	10	µg/L	< 10	< 10	< 13	< 10	< 10
Benzo(k)fluoranthene	10	µg/L	< 10	< 10	< 13	< 10	< 10
Chrysene	0.2	µg/L	< 10	< 10	< 13	< 10	< 10
Dibenzo(a,h)anthracene	0.3	µg/L	< 10	< 10	< 13	< 10	< 10
Dibenzofuran	1	µg/L	< 10	< 10	< 13	< 10	< 10
Fluoranthene	1,000	µg/L	< 10	< 10	< 13	< 10	< 10
Fluorene	1,000	µg/L	< 10	< 10	< 13	< 10	< 10
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 10	< 10	< 13	< 10	< 10
Naphthalene	20	µg/L	< 10	5.3 J	< 13	< 10	< 10
Phenanthrene	10	µg/L	< 10	< 10	< 13	< 10	< 10
Pyrene	1,000	µg/L	< 10	< 10	< 13	< 10	< 10
Inorganic Compounds							
Aluminum (fume or dust)	*	mg/L	0.15 B	0.032 B	0.03 B	0.11 B	0.54
Antimony	0.01	mg/L	< 0.020	< 0.02	< 0.02	< 0.02	< 0.02
Arsenic	0.05	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01
Barium	2	mg/L	0.20	0.19	0.23	0.2	0.2
Beryllium	0.004	mg/L	< 0.0040	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	0.005	mg/L	< 0.0050	< 0.005	< 0.005	< 0.005	< 0.005
Calcium metal	*	mg/L	17	17	19	19	19
Chromium	0.1	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	0.0025 B
Cobalt	*	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01
Copper	1.3	mg/L	< 0.020	< 0.02	< 0.02	< 0.02	0.002 B
Cyanide	0.2	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	--
Lead	0.015	mg/L	< 0.0050	0.0038 B	< 0.005	< 0.005	< 0.005
Magnesium	*	mg/L	8.4	8.5	9.6	9.6	9.2
Mercury	0.002	mg/L	< 0.00020	< 0.0002	< 0.0002	< 0.0002	< 0.00020
Nickel	0.1	mg/L	0.020 B	0.021 B	0.035 B	0.031 B	0.031 B
Potassium	*	mg/L	2.0	2.2	2.2	2.2	2.2
Selenium	0.05	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01
Sodium	*	mg/L	39	37	42	40	36
Thallium	0.002	mg/L	< 0.0020 W	< 0.002WN	< 0.002	< 0.002W	< 0.002
Vanadium (fume or dust)	0.2	mg/L	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01
Zinc	2	mg/L	0.0071 B	0.011 B	0.0085 B	< 0.02	0.0094 B

Notes:

-- Not analyzed

* - Not a HSRA regulated compound

B (Inorganics) - Estimated analyte concentration

Bold - analyte detected

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

D - Analyte concentration reported from secondary dilution

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

H - Holding time exceeded

ISCO - *in-situ* chemical oxidation

J - Estimated analyte concentration

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits

M (Organic) - Spike sample recovery outside control limits

N - Spike sample recovery outside of control limits

R - Sample data results rejected due to deficiencies in the ability to meet quality control standards

RRS - Risk Reduction Standard

<, U - Analyte not detected at referenced detection limit

UJ - Analyte not detected; low method bias and/or matrix interference

UN - Analyte not detected; spiked sample recovery outside of control limits

UR - Analyte not detected; data rejected

UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Augusta, Georgia

$$= (-1)^{n-1} \frac{1}{n} \left(\frac{1}{2} \right)^{n-1} = \frac{1}{2^n}.$$

OWN - Analyte not detected, post digestion spike and spike sample recovery outside control limits

Appendix E-1
Water Sampling Data - Alluvium, Galliard
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

[illegible]

-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

DB - Analyte concentration reported from secondary dilution

ISCO - *in-situ* chemical oxidation

JB (Organic) - Estimated analyte

M (Organic) - Spike sample recovery outside control limits

N - Spike sample recovery outside of control limits

R - Sample data results rejected due to deficiencies

RRS - Risk Reduction Standard

<, U - Analyte not detected at re

UJ - Analyte not detected; low method bias and/or matrix effect

UN - Analyte not detected; spiked sample recovery outside of control limits

UR - Analyte not detected; data rejected

UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-1
Summary of Historical Groundwater Sampling Data - Alluvium, Galliard, and Saprolite Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-408DR												
		Sample Date	1/26/2017	7/29/2016	1/21/2016	7/29/2015	1/15/2015	7/16/2014	1/8/2014	7/10/2013	1/8/2013	7/25/2012	1/25/2012	7/5/2011	2/23/2011
		Unit	Post-ISCO												
Field Parameters															
Conductivity	*	mS/cm	0.681	0.703	0.595	786	1.310	0.645	0.630	0.755	0.597	0.390	0.170	0.619	3.360
Dissolved Oxygen (YSI)	*	mg/L	0.22	0.19	0.19	1.1	0.84	0.10	0.22	0.05	0.53	4.20	0.31	0.08	5.68
Oxidation Reduction Potential	*	mV	-39.8	-12.1	-57	-60.1	-103.5	-83.8	-55.5	-53.7	-61.8	-13.5	-136.0	-50.9	89.2
pH	*	SU	6.07	5.83	6.01	5.89	6.29	6.12	6.21	5.98	6.08	6.03	6.71	6.03	0.682
Temperature	*	Celsius	20.88	25.57	20.03	24.7	13.70	21.10	18.61	21.17	18.05	24.35	19.98	21.79	20.79
Turbidity	*	NTU	7.54	10.3	3.04	23.3	20.1	20.0	35.2	23.4	9.00	21.2	8.53	23.2	9.92
Monitored Natural Attenuation Parameters															
Carbon Dioxide	*	µg/L	--	--	--	--	137	192	272	235	130	140	2,200 B	1,500 B	1,600
Iron, as Ferrous (Fe+2)	*	mg/L	--	--	--	--	3.85	39.7	45.1	51.8	46 HF	25 HF	0.79 HF	19 HF	13 HF
Methane	*	µg/L	--	--	--	--	6,600	6800	6,700	6,800	7,500	3,000 *	860	2,400	3,700
Nitrate	*	mg/L	--	--	--	--	< 0.25	< 0.25	<0.25	<0.25	< 0.25	< 0.25	< 0.25	< 0.075	< 0.36
Oxygen	*	mg/L	--	--	--	--	7.78 H	4.68 H	4.12 H	4.34 H	4.5	5	--	1.4	1.5
Sulfate	*	mg/L	--	--	--	--	< 1.0	< 1.0	<1.0	<1.0	< 5.0	< 5.0	250	< 2.6	< 2.6
Volatile Organic Compounds															
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 5.0	< 5.0	19 J
Benzene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.25	0.80 J	< 0.25
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60	< 0.60
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.11	< 0.11	< 0.11
Ethylbenzene	700	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	3.3 J B	< 1.0
Toluene	1,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.33	< 0.33	0.38 J
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13
Xylenes, total	2,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	2.2 J	2.8 J
Semivolatile Organic Compounds															
Acenaphthene	2,000	µg/L	36	24	29	22	< 0.50	41	32	17	32	30	< 0.11	32	16
Acenaphthylene	10	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.40	< 1.9	< 0.11	< 0.15	0.22
Anthracene	10	µg/L	0.92	0.59	0.74	0.69	< 0.050	0.9	0.83	0.39	0.87	< 1.9	< 0.11	1.0	0.21
Benz(a)anthracene	0.1	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Benzo(g,h,i)perylene	10	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Benzo(k)fluoranthene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Chrysene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.22	< 1.9	< 0.050	< 0.066	< 0.042
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Fluoranthene	1,000	µg/L	0.24	0.14	0.22	0.16	< 0.10	0.23	0.23	0.10	0.23	< 1.9	< 0.11	0.29	< 0.094
Fluorene	1,000	µg/L	1.5	0.87	1.3	1.2	< 0.10	1.9	2	1.3	2.7	2.2	< 0.11	4.0	2.0
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.22	< 1.9	< 0.11	< 0.15	< 0.094
Naphthalene	20	µg/L	< 0.5	< 0.5	< 0.5	0.63	< 500	31	0.57	< 0.50	0.27	< 1.9	0.57	0.24 J	0.23
Phenanthrene	10	µg/L	5.5	3.5 J	4.4	4.2	< 0.50	3.7	5.3	2.5	5.8	5.1	< 0.11	7.3	1.5
Pyrene	1,000	µg/L	0.19	0.12	0.16	0.15	< 0.050	0.15	0.16	0.065	<0.22	< 1.9	< 0.11	0.21 J	< 0.094
Inorganic Compounds															
Antimony	0.01	mg/L	< 0.006	< 0.006	< 0.006	< 0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.020	< 0.020	< 0.0053	< 0.0053	< 0.0053
Arsenic	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	0.429	< 0.0500	< 0.0500	< 0.0500	< 0.020	< 0.020	0.045	< 0.0046	< 0.0046
Barium	2	mg/L	0.555	0.589	0.572 JH	0.551	0.448	0.496	0.575	0.569	0.56	0.58	0.26	0.52	0.50
Beryllium	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0040	< 0.0040	< 0.00020	< 0.00020	< 0.00020
Cadmium	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0020	< 0.0020	< 0.0020
Chromium	0.1	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.010	< 0.010	< 0.0012	0.0018 J	0.0013 J
Copper	1.3	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.020	< 0.020	< 0.0019	< 0.0019	< 0.0019
Cyanide	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.0063 J	0.024	< 0.0050
Lead	0.015	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.010	< 0.010	< 0.0040	< 0.0040	< 0.0040
Mercury	0.002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.000091	< 0.000091	0.000092 J
Nickel	0.1	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.040	< 0.040	< 0.0023	0.0024 J	0.0030 J
Selenium	0.05	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.020	< 0.020	< 0.0064	< 0.0064	< 0.0064
Thallium	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0010	< 0.0010	< 0.00025	< 0.00025	< 0.00025
Vanadium (fume or dust)	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.010	< 0.010	< 0.0024	< 0.0024	< 0.0024
Zinc	2	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0200	0.132	< 0.0200	< 0.0200	0.038	< 0.020	< 0.0087	< 0.0087	0.018 J

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
H - Holding time exceeded
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank
RRS - Risk Reduction Standard

Notes:

- Not analyzed
- * - Not a HSRA regulated compound
- B (Inorganics) - Estimated analyte concentration
- bold - analyte detected**
- bold and shaded - Analyte concentration exceeds the Type 1 RRS**
- Detection limit exceeds the Type 1 RRS**
- D - Analyte concentration reported from secondary dilution
- DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
- H - Holding time exceeded
- ISCO - in-situ chemical oxidation
- J - Estimated analyte concentration
- B (Organic) - Estimated analyte concentration; analyte detected in method blank
- ** Monitoring well had NAPL detected

JM (Organic) - Estimated analyte concentration; spike sample recovery outside of control limits
 M (Organic) - Spike sample recovery outside control limits
 N - Spike sample recovery outside of control limits
 R - Sample data results rejected due to deficiencies in the ability to meet quality control standards
 RRS - Risk Reduction Standard
 < U - Analyte not detected at referenced detection limit
 UJ - Analyte not detected; low method bias and/or matrix interference
 UN - Analyte not detected; spiked sample recovery outside of control limits
 UR - Analyte not detected; data rejected
 UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

APPENDIX E-2

**SUMMARY OF HISTORICAL GROUNDWATER SAMPLING DATA – TRANSITION
ZONE AND BEDROCK MONITORING WELLS**

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-305								
		Sample Date	1/21/2005	7/15/2004	1/23/2004	7/17/2003	1/15/2003	7/10/2002	1/21/2002	7/16/2001	1/24/2001
		Unit	Pre-Extraction								
Volatile Organic Compounds											
Acetone	4,000	µg/L	120 U	120 U	120 U	25 U	120 U	120 U	120 U	120 U	25 U
Benzene	5	µg/L	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	0.59 J	5.0 U	0.13 J
Carbon Disulfide	4,000	µg/L	5.0 U	5.0 U	5.0 U	1.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	1.0 U
Ethylbenzene	700	µg/L	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.24 J
Methylene Chloride	5	µg/L	25 U	25 U	25 U	5.0 U	25 UJ	25 U	25 U	25 U	5.0 U
Toluene	1,000	µg/L	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U
Trichloroethylene	5	µg/L	39	34	36	44	32	3	32	36	34
Xylenes, total	2,000	µg/L	10 U	10 U	10 U	2.0 U	10 U	10 U	10 U	10 U	2.0 U
Semivolatile Organic Compounds											
2-Methylnaphthalene	*	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.1	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	10	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Inorganic Compounds											
Aluminum (fume or dust)	*	mg/L	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.24	0.2 U	0.045 B	0.051 B
Antimony	0.01	mg/L	0.02 U	0.006 U	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.098	0.11	0.1	0.1	0.10	0.1	0.11	0.099	0.099
Beryllium	0.004	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.0040 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	24	23	24	22	23	24	24	23	23
Chromium	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.01 UJ	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.0050 B	0.0066 B	0.004 B	0.0042 B	0.0034 B
Copper	1.3	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.0011 U	0.02 U	0.0013 B	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.015 U	0.010 UJ	0.04	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	0.05 U	0.05 U	0.05 U	0.04 U	0.031 B	0.34	0.048 B	0.062	0.034 B
Lead	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.005 U	0.002 B	0.005 U	0.005 U
Magnesium	*	mg/L	13	12	12	12	12	12	13	12	12
Manganese	*	mg/L	0.66	0.61	0.66	0.61	0.66	0.68	0.72	0.82	0.68
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.040 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	2.6	2.7	2.4	2.8	2.4	2.5	2.5	2.4	2.4
Selenium	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	53	56	50	53	54	51	57	55	55
Thallium	0.002	mg/L	0.002 U	0.001 U	0.001 U	0.002 U	0.0020 UJ	0.002 UWN	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.003 B	0.0025 B	0.0029 B	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02	0.020 U	0.02 U	0.0067 B	0.02 U	0.012 B

Notes:

-- - Not analyzed

* - Not a HSRA regulated compound

** - Resampled in August 2007 for VOCs only

B (Inorganics) - Estimated analyte concentration

Bold - analyte detected

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

D - Analyte concentration reported from secondary dilution

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

H - Holding time exceeded for sample

ISCO - *in-situ* chemical oxidation

J - Estimated analyte concentration

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction	Location ID	MW-309BR (Continued)													
		Sample Date	7/12/2006	1/12/2006	7/21/2005	1/20/2005	7/15/2004	1/22/2004	7/16/2003	1/17/2003	7/11/2002	1/17/2002	1/17/2002	7/12/2001	1/23/2001	
		Unit	Pre-Extraction													
Volatile Organic Compounds																
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	15 J	25 R	25 R	25 U	25 U	
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Semivolatile Organic Compounds																
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	10 U	10 U	10 U	10 U	10 U	10 U	
Inorganic Compounds																
Aluminum (fume or dust)	*	mg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.13 B	0.13 B	15	2.4 N	
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0044 U	0.0036 U	0.01 U	0.01 U	
Barium	2	mg/L	0.22	0.381	0.375	0.38	0.38	0.38	0.33	0.39	0.38	0.39	0.39	0.53	0.4	
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.00073 U	0.00068 U	0.004 U	0.004 U	
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Calcium metal	*	mg/L	--	26.4	24.4	26	25	28	25	27	25	26	27	40	27	
Chromium	0.1	mg/L	0.01 U	0.005 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.0032 B	0.01 U	0.002 U	0.18 N	0.0063 B	
Cobalt	*	mg/L	--	0.007 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.0025 B	0.006 B	0.0028 B	0.0036 B	0.14	0.021	
Copper	1.3	mg/L	0.01 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.002 B	0.0062 B	0.0015 U	0.0019 U	0.21 N	0.027	
Cyanide	0.2	mg/L	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Iron	*	mg/L	--	1.42	1.2	1.5	1.2	1.3	1.3	1.3	1.8	1.6	1.6	28	5.0	
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.003 B	0.005 U	
Magnesium	*	mg/L	< 0.0002	--	12.1	9.83	11	10	11	10	12	10	11	11	23	
Manganese	*	mg/L	< 0.02	--	0.355	0.321	0.36	0.34	0.35	0.35	0.32	0.33	0.37 J	0.37 J	0.78 N	
Mercury	0.002	mg/L	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000077 B	0.0002 U	0.0002 U	0.0002 U	0.00020 U	
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.1	0.04 U	
Potassium	*	mg/L	--	5 U	2.98	3.6	3.5	3.6	3	3.5	3.7	3.6 J	3.6 J	5.3	3.6	
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Sodium	*	mg/L	--	13.1	12.3	12	12	13	13	13	13	12	12	14	13	
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 UN	0.002 U	0.002 U	0.002 U	0.002 U	
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.046	0.0072 B	
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03	0.051	0.02 U	0.02 U	0.02 U	0.054	0.0086 B	

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
** - Resampled in August 2007 for VOCs only
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction	Location ID	MW-310BR (Continued)												
		Sample Date	7/11/2006	1/13/2006	7/20/2005	1/20/2005	7/15/2004	1/22/2004	7/16/2003	1/21/2003	7/16/2002	7/02 DUP	1/21/2002	1/18/2001	7/17/2001
		Unit	Pre-Extraction												
Volatile Organic Compounds															
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	2.4	1.0 U	1.0 U	0.23 J
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.5	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	1.0 U	1.0 U	0.33 J
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.7 J	0.7 J	2.0 U	2.0 U	1.2 J
Semivolatile Organic Compounds															
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	0.58 J	0.78 J	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.45	0.48	10 U	10 U	0.56 J	0.59 J	0.5 J	10 U	10 U
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	5.1 J	6.3 J	10 U	10 U	10 U
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Inorganic Compounds															
Aluminum (fume or dust)	*	mg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.044 B	0.085 B	8.3	0.11 B	0.095 BN
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.13	0.206	0.205	0.2	0.19	0.18	0.17	0.22	0.19	0.19	0.26	0.18	0.18
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	10.8	12.2	11	9.8	10	8.6	15	10	10	16	10	9.9
Chromium	0.1	mg/L	0.01 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.0089 B	0.01 U	0.01 U
Cobalt	*	mg/L	--	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0016 B	0.002 B	0.0075 B	0.01 U	0.01 U
Copper	1.3	mg/L	0.0353	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.012 B	0.0051 B	0.007 B	0.05	0.0014 B	0.0026 B
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	5.78	6.25	5.4	4.9	5.2	4.4	5.8	5	5.1	18	5.2	5.1
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0019 B	0.005 U	0.005 U
Magnesium	*	mg/L	< 0.0002	--	6.16	6.69	5.8	5.3	5.5	5	6.4	5.4	5.5	9	5.5
Manganese	*	mg/L	< 0.02	--	0.798	0.821	0.77	0.72	0.73	0.64	0.81	0.71	0.72	1.1	0.7
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U
Nickel	0.1	mg/L	0.0397	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0069 B	0.0063 B	0.006 B	0.017 B	0.04 U	0.04 U
Potassium	*	mg/L	--	5 U	2.93	2.8	2.6	2.6	1.8	2.9	2.6	2.6	3.7	2.7	2.6
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 B	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	--	14.3	16.7	13	13	13	12	13	12	12	13	12	12
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UW	0.002 UW	0.002 UW	0.002 U	0.002 UW	0.002 UWN
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.051	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03	0.02	0.02 U	0.02 U	0.024	0.0077 B	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction	Location ID	MW-313 (Continued)											
		Sample Date	7/12/2006	1/12/2006	7/19/2005	1/19/2005	7/14/2004	1/21/2004	7/16/2003	1/20/2003	7/15/2002	1/17/2002	7/16/2001	1/19/2001
		Unit	Pre-Extraction											
Volatile Organic Compounds														
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds														
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Inorganic Compounds														
Aluminum (fume or dust)	*	mg/L	--	0.571	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.033 B	0.045 B	0.032 B	0.042 B	0.043 B
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.0054 B	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.23	0.218	0.162	0.22	0.23	0.21	0.19	0.22	0.23	0.2	0.22	0.24
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	34.8	27	31	32	33	32	31	32	32	31	33
Chromium	0.1	mg/L	0.01 U	0.005 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	--	0.007 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.3	mg/L	0.0245	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0021 B	0.02 U	0.02 U	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	0.606	0.436	0.56	0.59	0.6	0.54	0.67	0.63 N	0.69	0.64	0.81 N
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	--	14.1	10.5	13	13	13	12	13	13	12	13	14
Manganese	*	mg/L	--	0.399	0.288	0.39	0.4	0.39	0.38	0.38	0.39	0.37	0.39	0.44
Mercury	0.002	mg/L	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000072 B	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	--	5 U	2.77	3.3	3.4	3.2	2.8	3	3.2	2.9	3.1	3.2
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0068 B	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	--	14.2	12.7	13	14	13	14	14	13	13	13	14
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UWN	0.002 UWN	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03	0.022	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-315 (Continued)												
			7/13/2006	7/06 DUP	1/13/2006	7/20/2005	1/18/2005	7/15/2004	1/22/2004	7/18/2003	1/21/2003	7/12/2002	1/21/2002	7/16/2001	1/24/2001
			Pre-Extraction												
Volatile Organic Compounds															
Acetone	4,000	µg/L	50 R	50 R	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	5	µg/L	5 U	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.11 J	0.19 J
Carbon Disulfide	4,000	µg/L	5 U	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	µg/L	5 U	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U	0.19 J
Methylene Chloride	5	µg/L	5 U	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1,000	µg/L	5 U	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	µg/L	5 U	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.5	2.0	2.3	1.5 J	2.1 J	3.2	2.8
Semivolatile Organic Compounds															
2-Methylnaphthalene	*	µg/L	--	--	7.5	6.7	5.5	22	26	12	16	6.5 J	12	21	35
Acenaphthene	2,000	µg/L	12	15	32	28	39	61	49	33	50	49	45	54	53
Acenaphthylene	10	µg/L	10 U	10 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	10 U	0.55	0.61	0.8 U	2.0 U	1.2	10 U	1.0 J	0.86 J	0.76 J	1.3 J	0.97 J
Benz(a)anthracene	0.1	µg/L	0.05 U	0.05 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.05 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.1 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	10 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	10 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.05 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.1 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	--	0.001 U	0.2 U	0.8 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	10 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	10 U	0.27	0.33	0.8 U	2.0 U	0.2 U	10 U	1.1 J	0.93 J	0.48 J	1.4 J	0.86 J
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.05 U	0.2 U	0.2 U	0.8 U	2.0 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	10 U	0.2 U	0.2 U	0.8 U	2.0 U	1.1	10 U	10 U	10 U	10 U	10 U	0.81 J
Phenanthrene	10	µg/L	10 U	10 U	1.6	1.5	1.3	4.5	4.7	10 U	4.0 J	2.4 J	3.5 J	6.4 J	6.5 J
Pyrene	1,000	µg/L	10 U	10 U	0.36	0.25	0.8 U	2.0 U	0.5	10 U	10 U	10 U	10 U	10 U	0.54 J
Inorganic Compounds															
Aluminum (fume or dust)	*	mg/L	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.046 B	0.061 B
Antimony	0.01	mg/L	0.02 U	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.404	0.395	0.306	0.282	0.3	0.3	0.29	0.27	0.3	0.3	0.29	0.29	0.29
Beryllium	0.004	mg/L	0.01 U	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	--	37.7	39.9	37	37	39	34	38	37	38	37	36
Chromium	0.1	mg/L	0.01 U	0.01 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	--	--	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.3	mg/L	0.01 U	0.01 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.002 B	0.02 U	0.0013 B	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	--	5.37	5.45	5.1	5.1	5.6	4.4	5.3	5.2	5.4	5.3	5.0
Lead	0.015	mg/L	0.01 U	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	--	--	16.2	16.5	16	16	16	16	16	16	16	16	15
Manganese	*	mg/L	--	--	1.13	1.08	1.1	1.1	1.1	1	1.1	1.1	1	1.1	1.0
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.02 U	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	--	--	5 U	4.2	4.4	4.3	4.3	3.6	4.2	4.2	4.1	4.1	4.1
Selenium	0.05	mg/L	0.02 U	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	--	--	18.8	20.1	17	18	19	17	19	18	18	18	18
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UW	0.002 UWN	0.002 U	0.002 U	0.002 UW
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.033	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-319 (Continued)													
		Sample Date	7/13/2006	1/12/2006	7/18/2005	1/17/2005	7/13/2004	1/20/2004	7/15/2003	1/21/2003	7/11/2002	1/17/2002	7/16/2001	7/01 DUP	1/16/2001	
		Unit	Pre-Extraction													
Volatile Organic Compounds																
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	15 J	25 U	25 U	25 U	25 U	25 U	25 UJ
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33 J
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.35 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.49 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds																
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Inorganic Compounds																
Aluminum (fume or dust)	*	mg/L	--	1.72	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.071 B	0.2	0.05 B	0.057 B	0.031 J	
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0058 B	0.02 U	0.0065 J	
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0037 B	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.736	0.642	0.603	0.61	0.6	0.6	0.52	0.6	0.55	0.67	0.62	0.62	0.62	
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.00072 B	0.004 U	0.004 U	0.00073 U	
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	36.5	29.5	28	28	29	31	28	28	33	30	30	34	
Chromium	0.1	mg/L	0.01 U	0.005 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.003 B	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	--	0.007 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.0047 B	0.0042 B	0.0058 B	0.0053 B	0.0048 B	0.0058 J	
Copper	1.3	mg/L	0.01 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0019 B	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	4.23	4.03	4.1	3.8	4.3	3.8	4.3	3.5	5.3	4.4	4.3	4.7	
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0025 U
Magnesium	*	mg/L	--	16.2	13.2	13	13	13	12	14	11	16	14	14	15	
Manganese	*	mg/L	--	1.11	1.08	1.1	1.1	1.2	1.1	1.1	0.94	1.3 N	1.1	1.1	1.2	
Mercury	0.002	mg/L	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 U	0.0052 B	0.04 U	0.04 U	0.0055 J	
Potassium	*	mg/L	--	5 U	3.68	3.4	3.4	3.4	3.2	3.1	3.5	3.6 N	3.7	3.6	4.3	
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	--	14.9	14.8	13	14	13	14	14	14	14	15	14	15	
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UJ	0.002 UJ	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.04	0.04	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-320 (continued)											
		Sample Date	7/13/2006	1/11/2006	7/20/2005	1/18/2005	7/13/2004	1/20/2004	7/15/2003	1/21/2003	7/11/2002	1/18/2002	7/16/2001	1/17/2001
		Unit	Pre-Extraction											
Volatile Organic Compounds														
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds														
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Inorganic Compounds														
Aluminum (fume or dust)	*	mg/L	--	0.626	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.034 B	0.031 J
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.273	0.237	0.23	0.25	0.26	0.25	0.23	0.18	0.26	0.26	0.24	0.25
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	19.9	19.7	19	19	19	18	22	19	19	18	19
Chromium	0.1	mg/L	0.01 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	--	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.0015 B	0.0019 B	0.0017 J
Copper	1.3	mg/L	0.01 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0018 B	0.02 U	0.0013 B	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	1.71	1.78	1.7	1.7	1.8	1.7	0.097	1.8	1.8	1.7	1.8
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.0024 U
Magnesium	*	mg/L	--	10.8	11.3	11	11	11	11	11	11	11	11	11
Manganese	*	mg/L	--	1.15	1.1	1.2	1.2	1.2	1.2	0.0094 B	1.2	1.1	1.1	1.2
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	--	5 U	2.62	2.8	2.8	2.8	2.6	3.6	2.8	2.7	2.6	2.9
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0043 UJ
Sodium	*	mg/L	--	9.84	10.8	9.7	10	9.8	11	11	10	10	9.8	9.9
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UW	0.002 UN	0.002 UW	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03	0.019 B	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-321 (Continued)																
		Sample Date	7/11/2006	7/06 DUP	1/14/2006	01/06 DUP	7/21/2005	1/21/2005	7/16/2004	1/23/2004	01/04 DUP	7/17/2003	07/03 DUP	1/22/2003	01/03 DUP	7/15/2002	1/22/2002	7/18/2001	1/22/2001
		Unit	Pre-Extraction																
Volatile Organic Compounds																			
Acetone	4,000	µg/L	50 R	50 R	2,500 U	2,500 U	500 U	1,200 U	1,200 U	1,200 U	1,200 U	1,300 U	1,300 U	1,200 U	1,200 U	250 U	250 U	250 R	250 U
Benzene	5	µg/L	4,500	5,100	6,200	6,100	5,300	6,500	6,900	6,500	6,900	6,500	6,400	5,700	5,700	4,800 D	6,000 D	7,900 D	1,800
Carbon Disulfide	4,000	µg/L	5 U	5 U	250 U	250 U	20 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
Ethylbenzene	700	µg/L	340	380	1,300	1,200	1,200	1,400	1,400	1,500	1,500	1,400	1,400	1,000	980	1,100	1,100	1,600	360
Methylene Chloride	5	µg/L	5 U	5 U	250 U	250 U	100 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	50 U	50 U	50 U	50 U
Toluene	1,000	µg/L	5 U	5 U	250 U	250 U	20 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	12	10	110	9.6 J
Trichloroethylene	5	µg/L	5 U	5 U	250 U	250 U	20 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
Xylenes, total	2,000	µg/L	110	110	500 U	500 U	260	260	290	360	370	550	560	490	500	560	610	890	290
Semivolatile Organic Compounds																			
2-Methylnaphthalene	*	µg/L	--	--	280	330	270	240	230	320	330	280	250	170 DJ	180 DJ	38	360	320	300
Acenaphthene	2,000	µg/L	63	57	130	130	98	84	80 U	50	85	110	99	88	90	8.2 J	120	120	110
Acenaphthylene	10	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	0.34	0.58	10 U	10 U	1.3 J	1.2 J	3.4 J	10 U	50 U	10 U
Anthracene	10	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	2.5	2.3	10 U	10 U	1.7 J	1.8 J	10 U	10 U	2.1 J	2.5 J
Benz(a)anthracene	0.1	µg/L	0.05 U	0.05 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.05 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.1 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.05 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.1 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Dibenzofuran	1	µg/L	--	--	80 U	100 U	20 U	40 U	80 U	3.0	2.3	10 U	10 U	3.8 J	4.0 J	0.45 J	5.5 J	5.1 J	4.7 J
Fluoranthene	1,000	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	0.96	0.89	10 U	10 U	0.78 J	0.85 J	10 U	10 U	50 U	0.97 J
Fluorene	1,000	µg/L	11	10 U	17	20 U	20 U	40 U	80 U	12	11	17	16	17	17	1.5 J	19 J	19 J	18
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.05 U	16 U	20 U	20 U	40 U	80 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Naphthalene	20	µg/L	1,500 J	150 J	2,700	3,300	3,000	2,500	2,600	3,000	3,000	4,800	3,800	1,900 D	1,900 D	540 D	2,900 D	3,300D	4,000 D
Phenanthrene	10	µg/L	10 U	10 U	23	23	20 U	40 U	80 U	16	16	16	14	14	15	1.0 J	21 J	20 J	17
Pyrene	1,000	µg/L	10 U	10 U	16 U	20 U	20 U	40 U	80 U	0.99	0.92	10 U	10 U	0.82 J	0.72 J	10 U	10 U	50 U	0.94 J
Inorganic Compounds																			
Aluminum (fume or dust)	*	mg/L	--	--	0.293	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.22	0.2 U	0.2 U	0.031 BN
Antimony	0.01	mg/L	0.02 U	0.02 U	0.01 U	0.01 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.325	0.309	0.288	0.281	0.283	0.27	0.27	0.26	0.24	0.25	0.25	0.26	0.26	0.31	0.24	0.23	0.25
Beryllium	0.004	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	--	40.7	39	38.1	38	35	36	35	32	33	33	33	35	31	31	32
Chromium	0.1	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 B	0.0052 B	0.0066 B	0.01 U	0.01 U	0.0018 B
Cobalt	*	mg/L	--	--	0.007 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.3	mg/L	0.01 U	0.01 U	0.025 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0025 B	0.0021 B	0.0027 B	0.0012 B	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	--	0.529	0.523	0.526	0.49	0.43	0.46	0.45	0.41	0.37	0.4	0.43	0.72 N	0.43	0.41	0.45
Lead	0.015	mg/L	0.01 U	0.01 U	0.003 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	--	--	16.9	16.6	15.4	16	14	14	14	14	15	14	14	14	13	13	13
Manganese	*	mg/L	--	--	0.308	0.301	0.307	0.31	0.29	0.29	0.27	0.27	0.27	0.26	0.26	0.31	0.25	0.25	0.27
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 UJ	0.000097 B	0.00009 B	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.02 U	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0057 B	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	--	--	5 U	5 U	3.19	3.7	3.7	3.5	3.3	3.2	3.6	5.4	5.5	8.5	3	3.1	3.1
Selenium	0.05	mg/L	0.02 U	0.02 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 B	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	--	--	16.7	16.2	17	15	15	15	15	15	16	15	15	15	15	14	14
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 UWN	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.007 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03	0.07	0.012 B	0.016 B	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through Janaury 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-324																	
		Sample Date	7/29/2015	1/13/2015	7/14/2014	1/8/2014	7/10/2013	1/9/2013	7/25/2012	1/24/2012	7/5/2011	1/19/2011	7/15/2010	1/7/2010	7/29/2009	1/15/2009	7/18/2008	1/10/2008	7/10/2007	2/14/2007
		Unit	Post-Extraction	During Extraction																
Volatile Organic Compounds																				
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 50	< 5.0	< 5.0	< 2000	< 100	< 100	< 1000	< 100	< 50	< 50	< 50
Benzene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	20	1,200 J H	< 0.25	11	1,600	6,400 D	< 5.0	870	80	18	2,300	3,700
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 6.0	< 0.60	2.4 J	< 100	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 5	< 5
Ethylbenzene	700	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	25 J	< 0.11	2.5 J	190	900	< 5.0	110	9.1	< 5.0	160	440
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 100	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 5	< 5
Toluene	1,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.4 J	< 0.33	1.2 J	7.4 J	52	< 5.0	4.4 JB	0.75 J	< 5.0	19	24
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.3	< 0.13	< 0.13	< 100	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 5	< 5
Xylenes, total	2,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	29 J	< 0.20	0.44 J	25 J	150	< 5.0	14 J	2.1	< 5.0	49	140
Semivolatile Organic Compounds																				
Acenaphthene	2,000	µg/L	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.19	0.35	0.24	< 0.11	< 0.099	< 19	49	< 0.19 *	3.5 J	0.4	< 10	21	36
Acenaphthylene	10	µg/L	< 1.0	< 1	< 1.0	< 1.0	< 1.0	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	0.96	< 0.19	< 3.9	< 0.20	< 10	< 10	< 10
Anthracene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	1.2	< 0.19	< 3.9	< 0.20	< 10	< 10	< 10
Benzo(a)anthracene	0.1	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.10	< 0.1	< 0.1
Benzo(g,h,i)perylene	10	µg/L	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 10	< 10	< 10
Benzo(k)fluoranthene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 10	< 10	< 10
Chrysene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.043	< 0.050	< 0.044	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.05	< 0.05	< 0.05
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.10	< 0.1	< 0.1
Fluoranthene	1,000	µg/L	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	0.87	< 0.19	< 3.9	< 0.20	< 10	< 10	< 10
Fluorene	1,000	µg/L	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	8.7	< 0.19	0.54 J	0.055	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	< 0.20	< 0.19	< 3.9	< 0.20	< 0.05	< 0.05	< 0.05
Naphthalene	20	µg/L	1.4	5.3	0.7	0.98	< 0.50	0.70	3.9	6.1	< 0.11	1.6	290	1,600	< 0.19	100 B	0.15	< 10	290	760
Phenanthrene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	0.15 J	< 0.11	< 0.099 *	< 19	8.1	< 0.19	0.68 J	0.065	< 10	< 10	< 10
Pyrene	1,000	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.19	< 0.19	< 0.095	< 0.11	< 0.099	< 19	0.87	< 0.19	< 3.9	0.034	< 10	< 10	< 10
Inorganic Compounds																				
Antimony	0.01	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0053	< 0.0053	< 0.0053	< 0.020	< 0.020	< 0.020	< 0.020	< 0.02	< 0.02	< 0.02	< 0.02
Arsenic	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.0046	< 0.0046	< 0.0046	< 0.020	< 0.020	< 0.020	< 0.010	< 0.01	< 0.05	< 0.05	< 0.05
Barium	2	mg/L	0.0572	0.0232	0.0657	0.0674	0.0693	0.061	0.089	0.081	0.079	0.078	0.072	0.21	0.066	0.082	0.076	0.0690	0.0849	0.181
Beryllium	0.004	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0040	< 0.0040	< 0.00020	< 0.00020	0.00022 JB	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.004	< 0.01	< 0.01	< 0.01
Cadmium	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	0.0066	0.0073	< 0.0050	< 0.0020	0.0020 J	0.0020 J	< 0.0050	< 0.0050	< 0.0050	0.00069 J	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.1	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0012	0.0043 J	0.0013 J	< 0.010	< 0.010	< 0.010	0.0028 J	< 0.01	< 0.01	< 0.01	< 0.01
Copper	1.3	mg/L	< 0.01	< 0.01	0.0176	0.0161	0.0192	< 0.02	< 0.02	0.0040 J	0.0064 J	0.0098 JB	< 0.020	< 0.020	< 0.020	0.013 J	0.0097 J	< 0.01	< 0.01	< 0.01
Cyanide	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0050	0.0095 J	< 0.0050	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01
Lead	0.015	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0040	< 0.0040	< 0.0040	< 0.010	< 0.010	< 0.010	< 0.0050	0.0031 J	< 0.01	< 0.01	< 0.01
Mercury	0.002	mg/L	< 0.0002	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.000091	< 0.000091	< 0.000091	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0002	< 0.0002
Nickel	0.1	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.04	0.0028 J	0.0029 J	0.0034 J	< 0.040	< 0.040	< 0.040	0.0088 J	0.0069 J	< 0.02	< 0.02	< 0.02
Selenium	0.05	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.020	< 0.020	< 0.0064	< 0.0064	< 0.0064	< 0.020	< 0.020	< 0.020	< 0.010	< 0.01	< 0.02	< 0.02	< 0.02
Thallium	0.002	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0010	< 0.0010	< 0.00025	< 0.00025	< 0.00025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.001	< 1.00	< 1.00	< 1
Vanadium (fume or dust)	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0024	< 0.0024	< 0.0024	< 0.010	< 0.010	< 0.010	0.0052 J	0.0042 J	< 0.01	< 0.01	< 0.01
Zinc	2	mg/L	< 0.02	0.0205	< 0.02	< 0.02	0.0337	< 0.020	< 0.020	< 0.0087	0.0091 J	< 0.0087	< 0.020	< 0.020	< 0.020	0.033	0.018 J	< 0.02	< 0.02	< 0.02

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-324 (Continued)												
		Sample Date	7/11/2006	1/14/2006	01/06 DUP	7/22/2005	1/19/2005	7/16/2004	1/23/2004	7/17/2003	1/22/2003	7/11/2002	07/02 DUP	1/23/2002	7/18/2001
		Unit	Pre-Extraction												
Volatile Organic Compounds															
Acetone	4,000	µg/L	50 U	5,000 U	5,000 U	830 U	2,500 U	2,500 U	2,500 U	630 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 R
Benzene	5	µg/L	1,900	13,000	13,000	14,000	12,000	14,000	16,000	15,000	14,000	15,000	12,000	16,000	15,000
Carbon Disulfide	4,000	µg/L	5 U	500 U	500 U	33 U	100 U	100 U	100 U	25 U	200 U	200 U	200 U	200 U	200 U
Ethylbenzene	700	µg/L	89	2,000	2,100	2,100	2,500	2,500	2,600	2,500	2,400	2,500	2,500	2,800	2,700
Methylene Chloride	5	µg/L	5 U	500 U	500 U	170 U	500 U	500 U	500 U	130 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Toluene	1,000	µg/L	29	500 U	500 U	520	540	320	720	1,100	1,400	1,200	1,300	1,900	2,600
Trichloroethylene	5	µg/L	5 U	500 U	500 U	33 U	100 U	100 U	100 U	25 U	200 U	200 U	200 U	200 U	200 U
Xylenes, total	2,000	µg/L	90	1,000	1,100	1,500	1,600	1,500	1,800	1,700	1,800	1,700	1,800	2,300	2,400
Semivolatile Organic Compounds															
2-Methylnaphthalene	*	µg/L	--	430	490	390	320	290	390	370 J M	700	480	440	770	670
Acenaphthene	2,000	µg/L	20	180	180	120	110	110	110	120 J M	230	180	160	230	230
Acenaphthylene	10	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	4.0	11	21 J	9.7 J	9.4 J	100 U	28 J
Anthracene	10	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	4.8 J	4.9 J	4.6 J	4.5 J	3.8 J
Benz(a)anthracene	0.1	µg/L	0.05 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Benzo(g,h,i)perylene	10	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Benzo(k)fluoranthene	10	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Chrysene	0.2	µg/L	0.05 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Dibenzofuran	1	µg/L	--	20 U	100 U	20 U	100 U	80 U	2.0 U	10 U	8.8 J	6.6 J	6.7 J	11 J	8.9 J
Fluoranthene	1,000	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Fluorene	1,000	µg/L	10 U	23	24	20 U	100 U	80 U	23	21	35 J	29 J	26 J	38 J	35 J
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Naphthalene	20	µg/L	170	4,400	4,300	3,500	3,700	3,600	4,600	4,400 J M	7,500 D	5,000 D	4,400 D	5,900 D	8,600 D
Phenanthrene	10	µg/L	10 U	27	28	20 U	100 U	80 U	22	18	36 J	26 J	26 J	41 J	34 J
Pyrene	1,000	µg/L	10 U	20 U	20 U	20 U	100 U	80 U	2.0 U	10 U	100 U	100 U	100 U	100 U	50 U
Inorganic Compounds															
Aluminum (fume or dust)	*	mg/L	--	0.303	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.058 B
Antimony	0.01	mg/L	0.02 U	0.01 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.0682	0.243	0.239	0.237	0.24	0.23	0.21	0.21	0.22	0.24	0.24	0.22	0.22
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	--	40.9	39.8	43.2	38	37	37	33	35	34	34	35	44
Chromium	0.1	mg/L	0.01 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	--	0.007 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.3	mg/L	0.01 U	0.025 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0015 B	0.00092 B	0.02 U	0.0017 B	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.11	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	0.62	0.516	0.533	0.48	0.46	0.37	0.38	0.36	0.33	0.31	0.37	0.37
Lead	0.015	mg/L	0.01 U	0.003 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0019 B	0.005 U	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	--	13.8	13.6	14.1	13	12	11	11	11	11	11	11	10
Manganese	*	mg/L	--	0.33	0.324	0.333	0.34	0.32	0.29	0.28	0.28	0.29	0.29	0.26	0.23
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.000095 B	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	--	5 U	5 U	3.58	3.7	3.7	4.4	3.1	3.4	3.6	3.6	3.3	4.4
Selenium	0.05	mg/L	0.02 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.006 B	0.01 U
Sodium	*	mg/L	--	16.3	16.1	17.9	15	15	18	15	15	17	17	15	16
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 UJ	0.002 U	0.002 UN	0.002 UN	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02	0.019 B	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-325 (Continued)										
		Sample Date	7/13/2006	1/12/2006	7/19/2005	1/17/2005	7/14/2004	1/21/2004	7/15/2003	1/21/2003	7/12/2002	1/18/2002	7/17/2001
		Unit	Pre-Extraction										
Volatile Organic Compounds													
Acetone	4,000	µg/L	50 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	0.13 J
Carbon Disulfide	4,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.3 J	1.0 U	1.0 U
Methylene Chloride	5	µg/L	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1,000	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	1.0 U
Trichloroethylene	5	µg/L	5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, total	2,000	µg/L	5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds													
2-Methylnaphthalene	*	µg/L	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	2,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	0.35 J	10 U	10 U
Acenaphthylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.2	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	0.3	µg/L	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	1	µg/L	--	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	µg/L	0.05 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20	µg/L	10 U	0.2 U	0.2 U	0.28	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	10	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 U	10 U	10 U	10 U	10 U
Pyrene	1,000	µg/L	10 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10 UJ	10 U	10 U	10 U	10 U
Inorganic Compounds													
Aluminum (fume or dust)	*	mg/L	--	0.817	0.978	0.25	0.2 U	0.2 U	2.7	0.2 U	0.2 B	2.1	30 N
Antimony	0.01	mg/L	0.02 U	0.01 U	0.006 U	0.02 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.021
Barium	2	mg/L	0.134	0.2 U	0.102	0.09	0.097	0.091	0.12	0.042	0.072	0.12	0.38
Beryllium	0.004	mg/L	0.01 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0042
Cadmium	0.005	mg/L	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.002 B
Calcium metal	*	mg/L	--	18.5	25.2	16	20	16	24	3.2	21	27	65
Chromium	0.1	mg/L	0.01 U	0.005 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.03	0.01 U	0.0061 B	0.17	0.23
Cobalt	*	mg/L	--	0.007 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 U	0.0036 B	0.058
Copper	1.3	mg/L	0.01 U	0.025 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0018 B	0.0015 B	0.0073 B	0.059
Cyanide	0.2	mg/L	0.01 U	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	--	1.13	0.54	0.54	0.28	0.45	4.8	0.035 B	0.17	3.6	41
Lead	0.015	mg/L	0.01 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01	0.005 U	0.005 U	0.0039 B	0.063
Magnesium	*	mg/L	--	7.93	7.87	6.7	7	7.4	9.7	0.65	3.3	8.7	30
Manganese	*	mg/L	--	0.258	0.28	0.24	0.26	0.28	0.35	0.0016 B	0.057	0.25	0.97
Mercury	0.002	mg/L	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.1	mg/L	0.02 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ	0.04 U	0.0049 B	0.11	0.18
Potassium	*	mg/L	--	5 U	3.16	4	3.5	2.9	4.2	8.4	8	6.2	15
Selenium	0.05	mg/L	0.02 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0061 B	0.01 U
Sodium	*	mg/L	--	11.8	12.9	12	12	12	13	13	13	12	12
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U	0.002 U	0.002 UW	0.002 UWN	0.002 UW	0.002 UWN
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.007 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01 U	0.0025 B	0.0052 B	0.062
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.07	0.023	0.02 U	0.039	0.62

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID	MW-500BR																				
		Sample Date	1/27/2017	7/28/2016	1/21/2016	7/29/2015	1/14/2015	7/16/2014	1/8/2014	7/9/2013	1/10/2013	7/26/2012	1/18/2012	7/6/2011	1/19/2011	7/13/2010	1/12/2010	7/23/2009	1/09 DUP	1/13/2009	7/17/2008	1/9/2008	7/10/2007
		Unit	Post-Extraction					During Extraction															
Volatile Organic Compounds																							
Acetone	4,000	µg/L	< 1000	< 50	< 50	< 5000	< 5000	< 5000	< 5,000	< 50	< 10,000	< 5,000	< 250	330 J	< 250	< 5000	< 5000	< 10000	< 5000	< 5000	< 500	< 50	< 50
Benzene	5	µg/L	5600	3100	9300	6200	13,000	9,300	10,000	9,200	9,700	14,000	11,000	9,800	8,200	7,000	5,200	5,600	6,400	5,600	4,300	12,000	7,700
Carbon Disulfide	4,000	µg/L	< 100	< 5.0	< 5.0	< 500	< 500	< 500	< 500	< 5.0	< 500	< 250	< 30	< 30	< 30	< 250	< 250	< 500	< 250	< 250	< 25	< 5.0	< 5.0
Ethylbenzene	700	µg/L	680	290	660	< 500	1,200	620	1,000	420	820	1,600	1,000	730	820	620	470	< 500	570	390	530	1,300	620
Methylene Chloride	5	µg/L	< 100	< 5.0	< 5.0	< 500	< 500	< 500	< 500	< 5.0	< 500	< 250	< 50	< 50	< 50	< 250	<250	< 500	< 250	< 250	< 25	< 5.0	< 5.0
Toluene	1,000	µg/L	< 100	< 5.0	7.9	< 500	< 500	< 500	< 500	11	< 500	< 250	24 J	57 J	68 J	29 J	< 250	< 500	38 J	36 J	38	140	15
Trichloroethylene	5	µg/L	< 100	< 5.0	< 5.0	< 500	< 500	< 500	< 500	< 5.0	< 500	< 250	< 6.5	< 6.5	< 6.5	< 250	< 250	< 500	< 250	< 250	< 25	< 5.0	< 5.0
Xylenes, total	2,000	µg/L	240	160	426	< 500	610	< 500	670	450	560	1100	790	780	760	640	420	< 500	470	310	350	850	280
Semivolatile Organic Compounds																							
Acenaphthene	2,000	µg/L	51	27	39	< 50	86	48	71	30	42	< 210	110	60	67	42	38	39	15	15	32	91 J	23
Acenaphthylene	10	µg/L	< 1.0	< 1.0	1.3	< 1.0	1.2	< 1.0	2.2	1.7	< 19	< 210	2.3	1.4	1.6 J	1.0 J	1.9	< 2.0	< 9.4	< 9.4	1.1 J	< 10	< 10
Anthracene	10	µg/L	0.99	0.44	0.55	0.72	1.6	0.69	1.1	0.082	< 19	< 210	1.0	0.68	< 0.99	< 1.9	0.30	< 2.0	< 9.4	< 9.4	0.34 J	< 10	< 10
Benz(a)anthracene	0.1	µg/L	< 0.05	0.057	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.50 J	< 0.05	< 0.05
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.32 J	< 0.05	< 0.05
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9 *	<0.19	< 2.0	< 9.4	< 9.4	0.43 J	< 0.10	< 0.10
Benzo(g,h,i)perylene	10	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	< 1.9	< 10	< 10
Benzo(k)fluoranthene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.40 J	< 10	< 10
Chrysene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 19	< 210	< 0.046	< 0.043	< 0.44	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.41 J	< 0.05	< 0.05
Dibenzo(a,h)anthracene	0.3	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.30 J	< 0.10	< 0.10
Fluoranthene	1,000	µg/L	0.32	0.16	0.19	0.23	0.51	0.2	0.31	< 0.10	< 19	< 210	0.31	0.17 J	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	< 1.9	< 10	< 10
Fluorene	1,000	µg/L	9.4	5.1	7.3	5.1	14	5.3	9.4	1.6	< 19	< 210	2.6	11	9.3	5.5	2.9	4.8	1.6 J	1.5 J	3.0	16 J	< 10
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 19	< 210	< 0.10	< 0.095	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.27 J	< 0.05	< 0.05
Naphthalene	20	µg/L	1800	550	920	1200	2,800	770	2,500	460	770	1600	3,100	1,300	980	630	550	560	310	310	380	3,900 J	330
Phenanthrene	10	µg/L	6.9	3.0	4.2	4.3	12	4.4	6.6	0.067	< 19	< 210	9.2	5.1	4.4	4.0	2.3	< 2.0	< 9.4	< 9.4	1.5 J	13 J	< 10
Pyrene	1,000	µg/L	0.38	0.17	0.22	0.29	0.59	0.18	0.31	0.093	< 19	< 210	0.32	0.20	< 0.99	< 1.9	<0.19	< 2.0	< 9.4	< 9.4	0.27 J	< 10	< 10
Inorganic Compounds																							
Antimony	0.01	mg/L	< 0.006	< 0.006	< 0.006	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0053	< 0.0053	< 0.0053	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.02	< 0.02	< 0.02
Arsenic	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.0046	< 0.0046	< 0.0046	< 0.020	< 0.020	< 0.020	< 0.010	< 0.010	< 0.01	< 0.05	< 0.05
Barium	2	mg/L	0.284	0.281	0.422	0.357	0.364	0.347	0.441	0.475	0.45	0.50	0.57	0.42	0.45	0.41	0.38	0.35	0.32	0.32	0.29	0.437	0.236
Beryllium	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0040	< 0.0040	< 0.00020	< 0.00020	0.00027 J	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.004	< 0.01	< 0.01
Cadmium	0.005	mg/L	0.0124	0.0177	0.0144	0.0237	< 0.005	< 0.005	0.0096	0.0108	0.0081	< 0.0050	0.0029 J	< 0.0020	0.0027 J	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.005	< 0.005
Chromium	0.1	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0012	< 0.0012	< 0.0012	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01
Copper	1.3	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.0019	< 0.0019	0.0034 JB	0.0025 J	< 0.020	< 0.020	< 0.020	< 0.020	< 0.02	< 0.01	< 0.01
Cyanide	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01
Lead	0.015	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0040	< 0.0040	< 0.0040	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.005	< 0.01	< 0.01
Mercury	0.002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.000091	< 0.000091	< 0.000091	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	0.1	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.04	0.0027 J	< 0.0023	< 0.0023	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.04	< 0.02	< 0.02
Selenium	0.05	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.020	< 0.020	< 0.0064	< 0.0064	< 0.0064	< 0.020	< 0.020	< 0.020	< 0.010	< 0.010	< 0.01	< 0.02	< 0.02
Thallium	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0010	< 0.0010	< 0.00025	< 0.00025	< 0.00025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.001	< 1.00	< 1.00
Vanadium (fume or dust)	0.2	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.0024	< 0.0024	< 0.0024	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01
Zinc	2	mg/L	0.0881	0.212	0.17	0.375	0.0686	0.0890	0.161	0.111	0.056	0.063	0.063	0.063	0.15	0.16	0.24	0.04	0.26	0.27	0.20	0.311	1.78

Notes:
-- - Not analyzed
* - Not a HSRA regulated compound
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
H - Holding time exceeded for sample
ISCO - *in-situ* chemical oxidation
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

Appendix E-2
Summary of Historical Groundwater Sampling Data - Transition Zone and Bedrock Monitoring Wells
January 2001 through January 2017
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Chemical Name	Type 1 Risk Reduction Standard	Location ID Sample Date Unit	MW-503BR																	MW-504BR																	
			1/24/2017	7/26/2016	1/19/2016	7/29/2015	1/15/2015	7/16/2014	1/13/2014	7/11/2013	1/10/2013	7/26/2012	1/19/2012	7/6/2011	1/19/2011	7/19/2010	1/12/2010	7/29/2009	1/19/2009	1/24/2017	7/26/2016	1/19/2016	7/29/2015	1/14/2015	7/16/2014	1/8/2014	7/10/2013	1/10/2013	7/26/2012	1/19/2012	7/7/2011	1/20/2011	7/19/2010	1/12/2010	7/23/2009	1/15/2009	
			During Extraction																	During Extraction																	
Volatile Organic Compounds																																					
Acetone	4,000	µg/L	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 200	< 100	13 J	< 50	< 0.25	5,200	1,700	13,000	26,000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 1000	< 1000	< 2000
Benzene	5	µg/L	< 5.0	750	< 5.0	790	35	910	< 5.0	180	300	770 D	20	1,200	< 0.25	5,200	1,700	13,000	26,000	< 5.0	16	< 5.0	210	< 5	570	< 5.0	< 5.0	160	51	300	43	120	610	650	950	2600	
Carbon Disulfide	4,000	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 0.60	< 0.60	< 250	< 100	< 1000	< 1000	< 1000	< 1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.60	< 0.60	< 50	< 50	< 50	< 50	14 J		
Ethylbenzene	700	µg/L	< 5.0	53	< 5.0	65	< 5	86	< 5.0	18	44	36	2.2 J	70	1.7 J	370	120	< 1000	1,100	< 5.0	< 5.0	< 5.0	22	< 5	130	< 5.0	< 5.0	22	8.0	41	8.4	4.1 J	110	110	180	< 100	
Methylene Chloride	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 1.0	< 1.0	< 250	< 100	< 1000	< 1000	< 1000	< 1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 50	< 50	< 50	230		
Toluene	1,000	µg/L	< 5.0	79	< 5.0	240	12	270	< 5.0	77	< 10	230	8.7	410	1.1 J	2,100	620	4,600	8,500	< 5.0	6.6	< 5.0	80	< 5	220	< 5.0	< 5.0	49	16	86	16	2.8 J	260	150	210	150 B	
Trichloroethylene	5	µg/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 0.22 J	< 1.3	< 0.13	< 250	< 100	< 1000	< 1000	< 1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.13	< 0.13	< 0.13	< 50	< 50	< 100			
Xylenes, total	2,000	µg/L	< 5.0	61	< 5.0	76	< 5	100	< 5.0	26	22	88	3.4 J	130	0.29 J	740	180	< 1000	2,200	< 5.0	5.2	< 5.0	25	< 5.0	110	< 5.0	< 5.0	23	8.4	45	8.6	4.6 J	140	83	110	120	
Semivolatile Organic Compounds																																					
Acenaphthene	2,000	µg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	2.8	< 20	0.22	2.1	< 0.099	9.8	2.8	< 3.8 *	21 J*	< 0.5	6.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	0.38	0.24	1.6 J	0.35	14	1.6 J	< 1.9	6.4	6.0 J	
Acenaphthylene	10	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.39	< 20	0.20	1.9	< 0.099	7.3 J	2.4	8.7	66 *	< 1.0	< 1.0	< 1.0	2.1	< 1	< 1.0	< 1.0	< 1.0	0.31	< 0.22	1.2 J	0.23	0.47	2.8	< 1.9	9.9	3.0 J		
Anthracene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.05	0.053	< 0.20	< 20	< 0.096	0.24	< 0.099	< 9.4	< 1.9	< 3.8	< 38 *	< 0.05	< 0.05	< 0.05	0.067	< 0.05	0.25	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	0.098 J	0.17 J	< 1.9	< 1.9	< 3.9	< 19	
Benzo(a)anthracene	0.1	µg/L	0.053	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	0.098 J	0.16 J	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Benzo(a)pyrene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	0.11 J	0.16 J	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Benzo(b)fluoranthene	0.2	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 20	0.15 J	0.10 J	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Benzo(g,h,i)perylene	10	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 20	0.097 J	0.21	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Benzo(k)fluoranthene	10	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	< 0.096	0.19	< 0.099	< 9.4	< 1.9	< 3.8	< 38 *	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Chrysene	0.2	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	0.075 J	0.20	< 0.045	< 9.4	< 1.9	< 3.8	< 38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 0.22	< 0.46	< 0.045	< 0.045	< 1.9	< 1.9	< 3.9	< 19	
Dibenz(a,h)anthracene	0.3	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 20	< 0.096	0.25	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.1	< 0.1	0.24	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Fluoranthene	1,000	µg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 20	0.14 J	0.19	< 0.099	< 9.4	< 1.9	< 3.8	< 38 *	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Fluorene	1,000	µg/L	< 0.1	0.28	< 0.1	0.27	< 0.10	0.36	< 0.10	0.28	0.98	< 20	0.17 J	2.3	< 0.099	6.6 J	2.5	5	22 J*	< 0.1	0.39	< 0.1	0.58	< 0.1	1.2	< 0.10	< 0.10	0.27	0.22	1.2 J	0.57	2.1	1.7 J	2.7	8.6	< 19	
Indeno(1,2,3-cd)pyrene	0.4	µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	< 0.096	0.20	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.05	< 0.05	0.052	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Naphthalene	20	µg/L	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	5.1	1.1	290 D	1.6	1.2	0.22	910	64	1,300 B	3,700	< 0.5	7.4	< 0.5	36	0.65	< 0.50	< 0.50	< 0.50	12	< 0.22	91	0.42	11	120	< 1.9	410	370 B	
Phenanthrene	10	µg/L	0.055	0.21	< 0.05	0.19	< 0.05	0.23	< 0.05	0.18	0.99	< 20	0.13 J	1.3	< 0.099	6.1 J	2.4	4.9	21 J*	0.087	0.079	< 0.05	0.57	0.088	1.3	0.056	< 0.05	0.24	< 0.22	1.0 J	0.40	0.18 J*	1.7 J	2.1	8	< 19	
Pyrene	1,000	µg/L	0.079	0.064	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.20	< 20	0.21	0.26	< 0.099	< 9.4	< 1.9	< 3.8	< 38	< 0.05	0.094	< 0.05	0.084	< 0.05	0.12	< 0.05	< 0.05	< 0.20	< 0.22	< 0.96	< 0.096	< 0.099	< 1.9	< 1.9	< 3.9	< 19	
Inorganic Compounds																																					
Antimony	0.01	mg/L	< 0.006	< 0.006	< 0.006	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.0053	< 0.0053	< 0.0053	< 0.020	< 0.020	< 0.020	< 0.020	< 0.006	< 0.006	< 0.006	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.020	< 0.0053	< 0.0053	< 0.0053	< 0.020	< 0.020	< 0.020	< 0.020
Arsenic	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.02	< 0.02	< 0.0046	< 0.0046	< 0.0046	< 0.020	< 0.020	< 0.020	< 0.010	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020	< 0.020	< 0.0046	< 0.0046	< 0.020	< 0.020	< 0.020	< 0.020	
Barium	2	mg/L	0.00652	0.0265	< 0.02	0.0221	< 0.02	0.0202	< 0.0200	0.0214	0.071	0.046	0.034	0.058	0.031	0.19	0.14	0.32	0.35	0.18	0.916	0.0961	0.186	0.184	0.155	0.105	0.126	0.18	0.19	0.26	0.25	1.0	0.36	0.36	0.41	0.26	
Beryllium	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.040	< 0.0040	< 0.0020	0.00024 J	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.004	< 0.004	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<			

APPENDIX E-3
SUMMARY OF HISTORICAL GROUNDWATER DATA – DECOMMISSIONED
MONITORING WELLS

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk	Location ID	MW-201	MW-202					MW-208		MW-209	MW-210
	Reduction Standard	Sample Date	7/9/2002	1/16/2003	7/12/2002	1/17/2002	7/11/2001	1/17/2001	7/11/2001	1/16/2001	4/3/2002	10/5/2006
		Unit	Pre-ISCO	Pre-ISCO					Pre-ISCO		Pre-ISCO	Post-ISCO
Volatile Organic Compounds												
Acetone	4	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.023 J	0.025 U	0.025 U	0.025 UJ	--	50 U
Benzene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.00025 J	0.001 U	0.0017	0.0012	0.001 U	5 U
Carbon Disulfide	4	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.00094 J	0.001 U	0.00046 J	0.00045 J	--	5 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00035 J	0.005 U	0.005 U	5 U
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00011 J	0.001 U	0.001 U	5 U
Toluene	1	mg/L	0.001 U	0.001 U	0.00051 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	5 U
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00032 J	0.001 U	0.001 U	5 U
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	5 U
Semivolatile Organic Compounds												
2-Methylnaphthalene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--
Acenaphthene	2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Acenaphthylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Anthracene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Benz(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.1 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Chrysene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.1 U
Dibenzofuran	0.001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--
Fluoranthene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Fluorene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U
Naphthalene	0.02	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Phenanthrene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Pyrene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	10 U
Inorganic Compounds												
Aluminum (fume or dust)	*	mg/L	0.042 J	0.050 B	0.037 B	0.12 B	0.2 U	0.2 U	0.17 B	19	--	--
Antimony	0.01	mg/L	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	0.005 B	0.02 U	0.013 J	--	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.024	0.033	--	0.05 U
Barium	2	mg/L	0.084	0.064	0.11	0.13	0.13	0.12	0.21	0.3	--	0.0474
Beryllium	0.004	mg/L	0.004 U	0.0040 U	0.004 U	0.00077 B	0.00058 B	0.002 B	0.004 U	0.0018 U	--	0.01 U
Cadmium	0.005	mg/L	0.0011 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0011 B	0.005 U	--	0.005 U
Calcium metal	*	mg/L	49	38	52	64	59	60	11	10	--	--
Chromium	0.1	mg/L	0.01 U	0.010 U	0.01 U	0.01 U	0.01 UN	0.01 U	0.01 UN	0.025	--	0.01 U
Cobalt	*	mg/L	0.0099 J	0.0069 B	0.01	0.015	0.012	0.014	0.0014 B	0.0038 J	--	--
Copper	1.3	mg/L	0.0016 U	0.020 U	0.0012 B	0.02 U	0.02 UN	0.02 U	0.0021 BN	0.064	--	0.01 U
Cyanide	0.2	mg/L	0.12	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U
Iron	*	mg/L	0.28	0.019 B	0.076	0.13	0.05 U	0.043 B	85	100	--	--
Lead	0.015	mg/L	0.005 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.0035 B	0.0041 B	0.099	--	0.01 U
Magnesium	*	mg/L	39	32	44	56	52	53	17	17	--	--
Manganese	*	mg/L	1.5	0.45	1.2	1.9 N	1.6 N	1.7	0.9 N	0.98	--	--
Mercury	0.002	mg/L	0.0002 U	0.000078 B	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.00020 U	--	0.0002 U
Nickel	0.1	mg/L	0.0049 J	0.040 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0097 J	--	0.02 U
Potassium	*	mg/L	1.1	1.0	1.4	1.7 N	1.6	1.6	2.0	2.6	--	--
Selenium	0.05	mg/L	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.02 U
Sodium	*	mg/L	100	100	18	150	170	120	44	44	--	--
Thallium	0.002	mg/L	0.002 UJ	0.0020 UWN	0.002 UWN	0.002 U	0.002 UW	0.002 U	0.002 U	0.002 U	--	0.001 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.0028 B	0.0033 B	0.003 B	0.0026 B	0.01 U	0.01 U	0.041	--	0.01 U
Zinc	2	mg/L	0.018 J	0.020 U	0.0086 B	0.017 B	0.017 B	0.0095 B	0.023	0.069	--	0.02 U

Notes:

-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-01D			TLC-01S		TLC-02S						
		Sample Date	1/18/2002	7/18/2001	1/23/2001	1/18/2002	1/23/2001	4/4/2002	3/8/2002	3/8/2002	1/18/2002	7/17/2001	1/23/2001	
		Sample ID Unit	TLC01D-011802	TLC01D-071801	TLC01D 012301	TLC01S-011802	TLC01S 012301	TLC02S-040402	TLC2S-030802	TLC2S-030802 SOLUBLE	TLC02S-011802	TLC02S-071701	TLC02S 012301	
Volatile Organic Compounds														
Acetone	4	mg/L	0.5 U	0.5 R	0.25 U	0.032	0.035	--	3.8	--	5 U	0.62 U	2.5 U	
Benzene	0.005	mg/L	1.8	2	1.8	0.099	0.00036 JB	20	9.8	--	21	25 D	21	
Carbon Disulfide	4	mg/L	0.02 U	0.02 U	0.01 U	0.001 U	0.001 U	--	0.05 U	--	0.2 U	0.025 U	0.1 U	
Dichloromethane	0.005	mg/L	0.1 U	0.1 U	0.05 U	0.005 U	0.005 U	1 U	0.25 U	--	1 U	0.12 U	0.5 U	
Ethylbenzene	0.7	mg/L	0.46	0.24	0.24	0.012	0.00033 J	1.4	0.52	--	0.86	1.4	1.2	
Toluene	1	mg/L	0.26	0.21	0.46	0.016	0.0004 J	0.2 U	0.05 U	--	0.2 U	0.041	0.1 U	
Trichloroethylene	0.005	mg/L	0.02 U	0.02 U	0.01 U	0.001 U	0.001 U	0.2 U	0.05 U	--	0.2 U	0.012 J	0.1 U	
Xylenes, total	2	mg/L	0.39	0.24	0.25	0.012	0.00061 J	--	0.36	--	0.57	1.3	0.93	
Semivolatile Organic Compounds														
2-Methylnaphthalene	*	mg/L	0.19 DJ	0.081	0.09	--	0.00041 J	--	1.5	--	0.77 DJ	0.94	0.01 U	
Acenaphthene	2	mg/L	0.055	0.021 J	0.015	--	0.00081 J	0.17 J	0.22	--	0.069	0.092	0.01 U	
Acenaphthylene	0.0002	mg/L	0.015	0.0098 J	0.028	--	0.01 U	0.25 U	0.014 J	--	0.01 U	0.05 U	0.01 U	
Anthracene	0.0002	mg/L	0.0044 J	0.002 J	0.0019 J	--	0.01 U	0.018 J	0.076 J	--	0.0079 J	0.0078 J	0.01 U	
Benz(a)anthracene	0.0001	mg/L	0.00051 J	0.05 U	0.01 U	--	0.01 U	0.25 U	0.024 J	--	0.00062 J	0.05 U	0.01 U	
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.05 U	0.01 U	--	0.01 U	0.25 U	0.014 J	--	0.01 U	0.05 U	0.01 U	
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.05 U	0.01 U	--	0.01 U	0.25 U	0.011 J	--	0.01 U	0.05 U	0.01 U	
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.05 UJ	0.01 U	--	0.01 U	0.25 U	0.01 J	--	0.01 U	0.05 U	0.01 U	
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.05 U	0.01 U	--	0.01 U	0.25 U	0.0086 J	--	0.01 U	0.05 U	0.01 U	
Chrysene	0.0002	mg/L	0.01 U	0.05 U	0.01 U	--	0.01 U	0.25 U	0.016 J	--	0.01 U	0.05 U	0.01 U	
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.05 UJ	0.01 U	--	0.01 U	0.25 U	0.1 U	--	0.01 U	0.05 U	0.01 U	
Dibenzofuran	0.001	mg/L	0.0056 J	0.0024 J	0.003 J	--	0.01 U	--	0.052 J	--	0.017	0.021 J	0.01 U	
Fluoranthene	1	mg/L	0.0032 J	0.05 U	0.01 U	--	0.01 U	0.25 U	0.055 J	--	0.0024 J	0.0023 J	0.01 U	
Fluorene	1	mg/L	0.026	0.01 J	0.011	--	0.01 U	0.074 J	0.11	--	0.029	0.039 J	0.01 U	
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.05 UJ	0.01 U	--	0.01 U	0.25 U	0.014 J	--	0.01 U	0.05 U	0.01 U	
Naphthalene	0.02	mg/L	1.7 D	0.67	1.1 D	--	0.0056 J	11 D	13 D	--	9.5 D	12 D	0.01 U	
Phenanthrene	*	mg/L	0.026	0.01 J	0.012	--	0.01 U	0.067 J	0.2	--	0.028	0.031 J	0.01 U	
Pyrene	1	mg/L	0.0038 J	0.05 U	0.0019 J	--	0.01 U	0.014 J	0.045 J	--	0.0028 J	0.05 U	0.01 U	
Inorganic Compounds														
Aluminum (fume or dust)	*	mg/L	--	1.1	2.5 N	--	1.1 N	--	--	--	0.039 B	0.06 BN	0.44 N	
Antimony	0.01	mg/L	--	0.02 U	0.02 U	--	0.02 U	--	--	--	0.02 U	0.02 U	0.02 U	
Arsenic	0.05	mg/L	--	0.01 U	0.0033 B	--	0.01 U	--	--	--	0.01 U	0.0065 B	0.0035 B	
Barium	2	mg/L	--	0.31	0.36	--	0.38	--	--	--	0.67	0.56	0.63	
Beryllium	0.004	mg/L	--	0.004 U	0.004 U	--	0.004 U	--	--	--	0.004 U	0.004 U	0.004 U	
Cadmium	0.005	mg/L	--	0.005 U	0.0022 B	--	0.0015 B	--	--	--	0.005 U	0.005 U	0.00078 B	
Calcium metal	*	mg/L	--	18	17	--	18	--	--	--	200	170	200	
Chromium	0.1	mg/L	--	0.0023 J	0.0074 B	--	0.0021 B	--	--	--	0.01 U	0.01 U	0.01 U	
Cobalt	*	mg/L	--	0.004 J	0.0057 B	--	0.0078 B	--	--	--	0.0052 B	0.0042 B	0.0063 B	
Copper	1.3	mg/L	--	0.0012 U	0.022	--	0.0060 B	--	--	--	0.002 B	0.0017 B	0.0038 B	
Cyanide	0.2	mg/L	--	0.026	0.028	--	0.045	--	1.5	1.4	1.4	1.3	0.77	
Iron	*	mg/L	--	55	71	--	49	--	--	--	20	20	23	
Lead	0.015	mg/L	--	0.005 U	0.0024 B	--	0.0022 B	--	--	--	0.005 U	0.005 U	0.0025 B	
Magnesium	*	mg/L	--	20	19	--	26	--	--	--	25	22	26	
Manganese	*	mg/L	--	0.92	1.0	--	1.9	--	--	--	1.6	1.6	1.8	
Mercury	0.002	mg/L	--	0.0002 U	0.00020 U	--	0.00020 U	--	--	--	0.0002 U	0.0002 U	0.00020 U	
Nickel	0.1	mg/L	--	0.04 U	0.019 B	--	0.013 B	--	--	--	0.04 U	0.04 U	0.04 U	
Potassium	*	mg/L	--	3.5	2.8	--	3.5	--	--	--	10	9.7	9.4	
Selenium	0.05	mg/L	--	0.01 U	0.01 U	--	0.01 U	--	--	--	0.0058 B	0.01 U	0.01 U	
Sodium	*	mg/L	--	55	52	--	21	--	--	--	16	14	17	
Thallium	0.002	mg/L	--	0.002 U	0.002 U	--	0.002 UJW	--	--	--	0.002 UJW	0.002 UN	0.002 UJW	
Vanadium (fume or dust)	0.2	mg/L	--	0.01 U	0.0051 B	--	0.01 U	--	--	--	0.0031 B	0.01 U	0.0025 B	
Zinc	2	mg/L	--	0.0086 J	0.015 B	--	0.0095 B	--	--	--	0.02 U	0.02 U	0.02 U	

Notes:

-- Not analyzed

* - Not a HSRA regulated compounds

B (Inorganics) - Estimated analyte concentration

Bold - analyte detected

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

D - Analyte concentration reported from secondary dilution

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

J - Estimated analyte concentration

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits

M (Organic) - Spike sample recovery outside control limits

N - Spike sample recovery outside of control limits

RRS - Risk Reduction Standard

U - Analyte not detected at referenced detection limit

UJ - Analyte not detected; low method bias and/or matrix interference

UN - Analyte not detected; spiked sample recovery outside of control limits

UR - Analyte not detected; data rejected

UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-03D				TLC-03S				
		Sample Date	1/21/2002	1/21/2002	7/13/2001	1/23/2001	3/8/2002	3/8/2002	1/21/2002	7/13/2001	1/23/2001
		Sample ID Unit	TLC03D-012102	TLC03SDUP-012102	TLC03D-071301	TLC03D 012301	TLC03S-030802 SOLUBLE	TLC3S-030802	TLC03S-012102	TLC03S-071301	TLC03S-012301
Volatile Organic Compounds											
Acetone	4	mg/L	0.021 J	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	0.005	mg/L	0.0006 J	0.1	0.001 U	0.001 U	--	0.19 D	0.12	0.001 U	0.012
Carbon Disulfide	4	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.0012 JB
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.00013 J
Toluene	1	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	--	0.002 U	0.002 U	0.002 U	0.002 U
Semivolatile Organic Compounds											
2-Methylnaphthalene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthene	2	mg/L	0.01 U	0.024	0.01 U	0.01 U	--	0.021	0.025	0.019	0.025
Acenaphthylene	0.0002	mg/L	0.01 U	0.001 J	0.01 U	0.01 U	--	0.00098 J	0.01 U	0.01 U	0.01 U
Anthracene	0.0002	mg/L	0.01 U	0.00074 J	0.01 U	0.01 U	--	0.01 U	0.00085 J	0.01 U	0.01 U
Benz(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.00047 J	0.00041 J	0.01 U	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzofuran	0.001	mg/L	0.01 U	0.00054 J	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene	1	mg/L	0.01 U	0.0022 J	0.00037 J	0.01 U	--	0.0021 J	0.0023 J	0.0013 J	0.0029 J
Fluorene	1	mg/L	0.01 U	0.011	0.01 U	0.01 U	--	0.006 J	0.012	0.0064 J	0.011
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene	0.02	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U
Pyrene	1	mg/L	0.01 U	0.002 J	0.01 U	0.01 U	--	0.0017 J	0.0021 J	0.0013 J	0.0025 J
Inorganic Compounds											
Aluminum (fume or dust)	*	mg/L	0.031 U	0.2 U	0.37	16 N	--	--	0.2 U	0.053 B	0.3
Antimony	0.01	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	--	--	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.072	0.8	0.067	0.092	--	--	0.79	0.077	0.32
Beryllium	0.004	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	--	--	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	53	120	53	53	--	--	120	100	100
Chromium	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.016	--	--	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	0.0045 B	0.0019 B	0.0042 B	0.0071 B	--	--	0.0017 B	0.0017 B	0.002 B
Copper	1.3	mg/L	0.0019 U	0.0014 B	0.02 U	0.016 B	--	--	0.0016 B	0.02 U	0.00099 B
Cyanide	0.2	mg/L	0.01 U	0.37	0.01 U	0.01 U	0.55	0.63	0.31	0.11	0.064
Iron	*	mg/L	0.19	8.7	0.31	4.3	--	--	8.5	0.49	8.8
Lead	0.015	mg/L	0.0024 U	0.0024 B	0.005 U	0.0067	--	--	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	33	20	32	32	--	--	20	18	17
Manganese	*	mg/L	0.68	0.26	0.71	0.75	--	--	0.25	0.12	0.31
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.00020 U	--	--	0.0002 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.04 U	0.04 U	0.04 U	0.0087 B	--	--	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	19	5.3	19	19	--	--	5.2	3.1	4.1
Selenium	0.05	mg/L	0.01 U	0.005 B	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	80	13	80	81	--	--	13	15	12
Thallium	0.002	mg/L	0.002 UJ	0.002 U	0.002 UW	0.002 U	--	--	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.016	--	--	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.012 B	0.0072 B	0.02 U	0.017 B	--	--	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-04D							TLC-04S						
		Sample Date	7/18/2003	1/15/2003	7/15/2002	1/15/2002	7/12/2001	1/22/2001	1/22/2001	1/20/2004	7/18/2003	1/15/2003	7/15/2002	1/15/2002	7/12/2001	1/22/2001
		Sample ID Unit	TLC-4D-Q3-03	TLC04D-011503	TLC04D-071502	TLC4D-011502	TLC04D-071201	010104D 012201	TLC04D 012201	TLC-4S-Q1-04	TLC-4S-Q3-03	TLC04S-011503	TLC04S-071502	TLC4S-011502	TLC04S-071201	TLC04S 012201
Volatile Organic Compounds																
Acetone	4	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.25 U	0.025 U	0.12 U	0.5 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.12 U
Benzene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0022 J	0.001 U	0.005 U	0.02 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U
Carbon Disulfide	4	mg/L	0.004	0.001 UJ	0.001 U	0.001 U	0.01 U	0.001 U	0.005 U	0.02 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.005 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 UJ	0.00043 J	0.005 U	0.05 U	0.005 U	0.025 U	0.1 U	0.005 U	0.005 UJ	0.005 U	0.005 U	0.005 U	0.025 U
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.001 U	0.005 U	0.02 U	0.001 U	0.001 U	0.00019 J	0.001 U	0.001 U	0.005 U
Toluene	1	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.001 U	0.005 U	0.02 U	0.001 U	0.001 U	0.00055 J	0.001 U	0.001 U	0.005 U
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.001 U	0.005 U	0.02 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.02 U	0.002 U	0.01 U	0.04 U	0.002 U	0.002 U	0.00036 J	0.002 U	0.002 U	0.01 U
Semivolatile Organic Compounds																
2-Methylnaphthalene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthene	2	mg/L	0.01 U	0.00039 J	0.00043 J	0.01 U	0.00046 J	0.01 U	0.00055 J	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0015 J
Acenaphthylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.00067 J	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Anthracene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benz(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzofuran	0.001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00029	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluorene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene	0.02	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00079 J
Pyrene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Inorganic Compounds																
Aluminum (fume or dust)	*	mg/L	2.6	2.7	2.9	0.059 BN	0.13 B	0.91	0.53	0.2 U	0.8	0.91	4.5	0.30 N	0.87	6.0
Antimony	0.01	mg/L	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.01 U
Barium	2	mg/L	0.14	0.15	0.13	0.13	0.14	0.14	0.14	0.19	0.17	0.16	0.18	0.18	0.17	0.19
Beryllium	0.004	mg/L	0.004 U	0.0040 U	0.004 U	0.0040 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0040 U	0.004 U	0.0040 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.0050 U	0.005 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.005 U	0.0050 U	0.005 U	0.005 U
Calcium metal	*	mg/L	41	44	43	43	45	42	40	50	43	38	37	38	39	37
Chromium	0.1	mg/L	0.01 U	0.0033 U	0.0028 B	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.0043 B	0.010 U	0.01 U	0.0060 B
Cobalt	*	mg/L	0.01 U	0.0016 B	0.0015 B	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0027 B	0.002 B	0.010 U	0.01 U	0.0022 B
Copper	1.3	mg/L	0.02 U	0.0017 U	0.002 B	0.020 U	0.02 U	0.0016 B	0.0033 B	0.02 U	0.02 U	0.0014 U	0.0024 B	0.020 U	0.02 U	0.0026 B
Cyanide	0.2	mg/L	0.015 U	0.010 UJ	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.010 UJ	0.01 U	0.010 U	0.01 U	0.01 U
Iron	*	mg/L	3.1	3.6	2.5 N	2.1 N	3.3	4.2 N	3.9 N	0.48	1	0.79	2.8 N	0.70 N	0.53	3.9 N
Lead	0.015	mg/L	0.005 U	0.0018 U	0.002 B	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.002 B	0.0050 U	0.005 U	0.0017 B
Magnesium	*	mg/L	26	25	24	25	26	24	23	26	25	20	19	20	21	20
Manganese	*	mg/L	1.4	1.4	1.3	1.4	1.4	1.3	1.3	1.6	1.4	1.3	1.3	1.3	1.3	1.3
Mercury	0.002	mg/L	0.0002 U	0.00020 U	0.0002 U	0.00020 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.00020 U	0.0002 U	0.00020 U
Nickel	0.1	mg/L	0.04 U	0.040 U	0.04 U	0.040 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.040 U	0.04 U	0.040 U	0.04 U	0.04 U
Potassium	*	mg/L	9.5	10	10	11	11	10	10	11	9.6	9.6	9.9	9.8	10	9.9
Selenium	0.05	mg/L	0.02	0.010 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02	0.010 U	0.0044 B	0.010 U	0.01 U	0.01 U
Sodium	*	mg/L	80	86	80	83	83	81	78	87	79	76	77	78	78	77
Thallium	0.002	mg/L	0.002 U	0.0020 UJ	0.002 UWN	0.0020 U	0.002 UW	0.002 U	0.002 U	0.001 U	0.002 U	0.0020 UJ	0.002 UWN	0.0020 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.0028 B	0.0026 B	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01	0.0090 B	0.019	0.0064 B	0.0088 B	0.019
Zinc	2	mg/L	0.03	0.020 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02	0.0078 B	0.0069 B	0.020 U	0.02 U	0.0093 B

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-05D								TLC-05S							
		Sample Date	1/20/2004	7/18/2003	1/15/2003	7/15/2002	1/15/2002	7/11/2001	1/19/2001	1/20/2004	7/18/2003	1/15/2003	7/15/2002	7/15/2002	1/15/2002	7/11/2001	1/19/2001	
		Sample ID Unit	TLC-5D-Q1-04	TLC-5D-Q3-03	TLC05D-011503	TLC05D-071502	TLC05D-011502	TLC05D-071101	TLC05D-011901	TLC-5S-Q1-04	TLC-5S-Q3-03	TLC05S-011503	TLC05S-071502 DUP	TLC05S-071502	TLC05S-011502	TLC05S-071101	TLC05S011901	
Volatile Organic Compounds																		
Acetone	4	mg/L	0.12 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.05 U	0.25 U	0.025 U	0.025 U	0.025 U	0.091	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	0.005	mg/L	0.005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	4	mg/L	0.005 U	0.001 U	0.001 UJ	0.00039 J	0.001 U	0.001 U	0.001 U	0.002 U	0.01 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichloromethane	0.005	mg/L	0.025 U	0.005 U	0.005 UJ	0.00074 J	0.005 U	0.005 U	0.01 U	0.05 U	0.005 U	0.005 UJ	0.00048 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethylbenzene	0.7	mg/L	0.005 U	0.001 U	0.001 U	0.00036 J	0.001 U	0.001 U	0.002 U	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	1	mg/L	0.005 U	0.001 U	0.001 U	0.00067 J	0.001 U	0.001 U	0.002 U	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethylene	0.005	mg/L	0.005 U	0.004	0.0036	0.0044	0.0031	0.0028	0.0033	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	2	mg/L	0.01 U	0.002 U	0.002 U	0.00072 J	0.002 U	0.002 U	0.00046 J	0.004 U	0.02 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Semivolatile Organic Compounds																		
2-Methylnaphthalene	-	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Acenaphthene	2	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00028 J	0.01 U	0.01 U
Acenaphthylene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Anthracene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benz(a)anthracene	0.0001	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	0.0002	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzofuran	0.001	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluoranthene	1	mg/L	0.00035	0.01 U	0.00036 J	0.01 U	0.01 U	0.01 U	0.00058 J	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Fluorene	1	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene	0.02	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Phenanthrene	-	mg/L	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Pyrene	1	mg/L	0.00047	0.01 U	0.00072 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Inorganic Compounds																		
Aluminum (fume or dust)	-	mg/L	0.29	10	0.93	0.99	37	5.5	4.0	0.2 U	0.2 U	0.13 B	0.049 B	0.052 B	0.096 BN	0.2 U	0.17 B	0.17 B
Antimony	0.01	mg/L	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.16	0.19	0.16	0.17	0.29	0.19	0.13	0.077	0.08	0.068	0.073	0.073	0.071	0.068	0.068	0.068
Beryllium	0.004	mg/L	0.004 U	0.004 U	0.0040 U	0.004 U	0.0018 B	0.00079 B	0.004 U	0.004 U	0.004 U	0.0040 U	0.004 U	0.004 U	0.0040 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0050 U	0.005 U	0.005 U	0.0050 U	0.005 U	0.005 U	0.005 U
Calcium metal	-	mg/L	31	27	29	28	27	25	27	40	41	36	38	38	36	37	36	36
Chromium	0.1	mg/L	0.01 U	0.01 U	0.0019 U	0.01 U	0.052	0.0074 BN	0.0057 B	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.010 U	0.01 UN	0.01 U	0.01 U
Cobalt	-	mg/L	0.01 U	0.01 U	0.0054 B	0.0065 B	0.014	0.0067 B	0.0043 B	0.01 U	0.01 U	0.0034 B	0.0033 B	0.0034 B	0.0029 B	0.0028 B	0.0025 B	0.0025 B
Copper	1.3	mg/L	0.02 U	0.02 U	0.0011 U	0.00097 B	0.015 B	0.0023 BN	0.0033 B	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.020 U	0.005 BN	0.0012 B	0.0012 B
Cyanide	0.2	mg/L	0.01 U	0.015 U	0.010 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.010 UJ	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U
Iron	-	mg/L	3.4	12	5.6	4.5 N	20	8.6	4.7 N	0.076	0.19	0.30	0.19 N	0.18 N	0.10 N	0.79	0.76 N	0.76 N
Lead	0.015	mg/L	0.005 U	0.02	0.0023 U	0.005 U	0.027	0.0069	0.0091	0.005 U	0.005 U	0.0024 U	0.005 U	0.005 U	0.0050 U	0.0018 B	0.005 U	0.005 U
Magnesium	-	mg/L	17	15	16	15	16	14	15	23	27	21	23	23	22	20	20	20
Manganese	-	mg/L	1.4	1.3	1.3	1.4	1.5	1.3 N	1.4	2	2.1	1.7	1.9	1.9	1.8	1.8 N	1.9	1.9
Mercury	0.002	mg/L	0.0002 U	0.0002 UJ	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.000080 B	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.00020 U	0.00020 U
Nickel	0.1	mg/L	0.04 U	0.04 U	0.040 U	0.04 U	0.027 B	0.0058 B	0.04 U	0.04 U	0.04 U	0.040 U	0.04 U	0.04 U	0.040 U	0.04 U	0.04 U	0.04 U
Potassium	-	mg/L	6.8	5.8	6.1	6.3	6.6	5.9	6.4	7.2	6.9	6.3	6.9	6.9	6.5	6.4	6.2	6.2
Selenium	0.05	mg/L	0.01 U	0.01 UJ	0.010 U	0.0076 B	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U
Sodium	-	mg/L	79	69	75	76	72	70	74	77	78	70	77	77	75	66	71	71
Thallium	0.002	mg/L	0.001 U	0.002 U	0.0020 UJ	0.002 UWN	0.002 U	0.002 U	0.002 U	0.001 U	0.002 U	0.0020 UJ	0.002 UWN	0.002 UWN	0.0020 U	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.02	0.010 U	0.01 U	0.055	0.0081 B	0.0044 B	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.010 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.04	0.020 U	0.02 U	0.052	0.011 B	0.0098 B	0.02 U	0.18	0.020 U	0.02 U	0.02 U	0.020 U	0.0063 B	0.02 U	0.02 U

Notes:

-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-07D					TLC-07S							
		Sample Date	1/21/2003	7/16/2002	1/17/2002	7/12/2001	1/24/2001	1/21/2004	7/19/2003	1/21/2003	7/16/2002	1/16/2002	7/11/2001	1/24/2001	
		Sample ID Unit	TLC07D-012103	TLC07D-071602	TLC07D-011702	TLC07D-071201	TLC07D 012401	TLC-7S-Q1-04	TLC-7S-Q3-03	TLC07S-012103	TLC07S-071602	TLC07S-011602	TLC07S-071101	TLC07S 012401	
Volatile Organic Compounds															
Acetone	4	mg/L	0.038	0.025 U	0.018 J	0.062	0.048	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	0.005	mg/L	0.00014 J	0.001 U	0.001 U	0.00023 J	0.00058 J	0.001 U	0.001 U	0.00014 J	0.001 U	0.001 U	0.00024 J	0.00072 J	0.00072 J
Carbon Disulfide	4	mg/L	0.00037 J	0.00098 J	0.001 U	0.00036 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0037	0.001 U	0.001 U	0.001 U	0.001 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0003 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethylbenzene	0.7	mg/L	0.00011 J	0.001 U	0.001 U	0.001 U	0.00056 J	0.001 U	0.001 U	0.00021 J	0.00029 J	0.001 U	0.001 U	0.00016 J	0.00016 J
Toluene	1	mg/L	0.00078 J	0.001 U	0.00037 J	0.00091 J	0.00075 J	0.001 U	0.001 U	0.00032 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.001 J	0.00066 J	0.002 U	0.002 U	0.00083 J	0.002 U	0.002 U	0.00061 J	0.0012 J	0.0012 J
Semivolatile Organic Compounds															
2-Methylnaphthalene	*	mg/L	0.01 U	0.01 U	--	0.01 U	0.00087 J	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0042 J
Acenaphthene	2	mg/L	0.0016 J	0.00093 J	--	0.0014 J	0.0033 J	0.0078	0.026	0.011	0.0042 J	0.0055 J	0.018		0.03
Acenaphthylene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Anthracene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.00064 J	0.0002	0.01 U	0.01 U	0.01 U	0.01 U	0.0022 J		0.0035 J
Benz(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	--	0.01 U	0.00045 J	0.00022	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzofuran	0.001	mg/L	0.01 U	0.01 U	--	0.01 U	0.00061 J	0.0002 U	0.01 U	0.00088 J	0.01 U	0.00044 J	0.0039 J		0.0071 J
Fluoranthene	1	mg/L	0.01 U	0.01 U	--	0.01 U	0.0011 J	0.0029	0.01 U	0.0023 J	0.0016 J	0.0016 J	0.0031 J		0.004 J
Fluorene	1	mg/L	0.01 U	0.01 U	--	0.01 U	0.0014 J	0.0025	0.01 U	0.0042 J	0.0017 J	0.0015 J	0.0064 J		0.013
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene	0.02	mg/L	0.01 U	0.01 U	--	0.01 U	0.0011 J	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U		0.0058 J
Phenanthrene	*	mg/L	0.01 U	0.00043 J	--	0.01 U	0.0018 J	0.0002 U	0.01 U	0.00045 J	0.01 U	0.00041 J	0.011		0.016
Pyrene	1	mg/L	0.01 U	0.01 U	--	0.00055 J	0.0015 J	0.0026	0.01 U	0.0021 J	0.0014 J	0.0014 J	0.0026 J		0.0035 J
Inorganic Compounds															
Aluminum (fume or dust)	*	mg/L	0.67	--	--	0.67	--	0.2 U	0.3	0.1 B	0.56	0.036 U	0.21		0.16 B
Antimony	0.01	mg/L	0.02 U	--	--	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	--	--	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.37	--	--	0.37	--	0.38	0.43	0.39	0.34	0.35	0.4		0.4
Beryllium	0.004	mg/L	0.004 U	--	--	0.004 U	--	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	--	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium metal	*	mg/L	21	--	--	21	--	84	83	86	75	77	84		90
Chromium	0.1	mg/L	0.01 U	--	--	0.0022 B	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UN		0.01 U
Cobalt	*	mg/L	0.0042 B	--	--	0.006 B	--	0.01 U	0.01 U	0.0045 B	0.0088 B	0.0089 B	0.0047 B		0.0053 B
Copper	1.3	mg/L	0.0045 B	--	--	0.0053 B	--	0.02 U	0.02 U	0.0024 B	0.00099 B	0.02 U	0.02 UN		0.02 U
Cyanide	0.2	mg/L	--	--	--	0.01 U	--	0.012	0.05	0.012	0.01 U	0.027	0.01 U		0.017
Iron	*	mg/L	13	--	--	17	--	39	25	31	34	33	33		29
Lead	0.015	mg/L	0.005 U	--	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	13	--	--	13	--	67	68	67	63	64	66		67
Manganese	*	mg/L	1.7	--	--	1.5	--	3.4	2.1	2.8	3.9	4	2.6 N		2.4
Mercury	0.002	mg/L	0.00092 B	--	--	0.0002 U	--	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.00020 U
Nickel	0.1	mg/L	0.04 U	--	--	0.04 U	--	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U		0.04 U
Potassium	*	mg/L	2.4	--	--	2.7	--	4	6.4	5.6	3.9	3.5	5.9		6.5
Selenium	0.05	mg/L	0.01 U	--	--	0.01 U	--	0.01 U	0.02	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U
Sodium	*	mg/L	28	--	--	26	--	53	46	53	51	51	54		51
Thallium	0.002	mg/L	0.002 UW	--	--	0.002 UW	--	0.001 U	0.002 U	0.002 UW	0.002 UW	0.002 U	0.002 U		0.002 UW
Vanadium (fume or dust)	0.2	mg/L	0.01 U	--	--	0.003 B	--	0.01 U	0.02	0.01 U	0.01 U	0.01 U	0.01 U		0.01 U
Zinc	2	mg/L	0.028	--	--	0.02 U	--	0.02 U	0.03	0.022	0.02 U	0.02 U	0.02 U		0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-08D					TLC-08S						
		Sample Date	1/22/2003	7/16/2002	1/16/2002	7/13/2001	1/19/2001	1/18/2001	1/17/2002	7/16/2002	1/21/2004	7/19/2003	1/21/2003	
		Sample ID Unit	TLC08D-012203	TLC08D-071602	TLC08D-011602	TLC08D-071301	TLC08D 011901	TLC08S 011801	TLC08S-011702	TLC08S-071602	TLC-8S-Q1-04	TLC-8S-Q3-03	TLC08S-012103	
Volatile Organic Compounds														
Acetone	4	mg/L	0.025 U	0.025 U	0.024 J	0.025 U	0.025 U	0.025 U	0.025 U	0.036	1.2 U	0.63 U	0.05 U	
Benzene	0.005	mg/L	0.00064 J	0.00074 J	0.004	0.0015	0.0025	0.18	0.11	0.07	0.19	0.18	0.24	
Carbon Disulfide	4	mg/L	0.001 U	0.001 U	0.001 U	0.00046 J	0.00059 J	0.001 U	0.001 U	0.001 U	0.05 U	0.025 U	0.002 U	
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00034 J	0.25 U	0.13 U	0.01 U	
Ethylbenzene	0.7	mg/L	0.0002 J	0.00048 J	0.0039	0.004	0.0064	0.16	0.15	0.054	0.16	0.15	0.24	
Toluene	1	mg/L	0.001 U	0.00073 J	0.0003 J	0.00069 J	0.00036 J	0.0035	0.0029	0.0014	0.05 U	0.025 U	0.0044	
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.025 U	0.002 U	
Xylenes, total	2	mg/L	0.001 J	0.0014 J	0.0033	0.0042	0.0055	0.079	0.073	0.023	0.5 U	0.05 U	0.092	
Semivolatile Organic Compounds														
2-Methylnaphthalene	*	mg/L	0.0078 J	0.036	--	0.01 U	0.01 U	0.62	0.45 J	0.37 D	0.34	0.53 J M	0.44	
Acenaphthene	2	mg/L	0.019	0.031	--	0.0087 J	0.0027 J	0.36	0.31 J	0.27 D	0.22	0.37	0.25	
Acenaphthylene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.0034 J	0.0035 J	0.5 U	0.01 U	0.0002 U	0.01 U	0.05 U	
Anthracene	0.0002	mg/L	0.0015 J	0.0034 J	--	0.0022 J	0.01 U	0.02 J	0.5 U	0.016	0.022	0.025	0.016 J	
Benz(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0083 J	0.5 U	0.0016 J	0.0047	0.01 U	0.0042 J	
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.00044 J	--	0.01 U	0.01 U	0.0071 J	0.5 U	0.0012 J	0.0018	0.01 U	0.05 U	
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0062 J	0.5 U	0.01 U	0.0002 U	0.01 U	0.05 U	
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.0012 J	--	0.01 U	0.01 U	0.0075 J	0.5 U	0.01 U	0.0011	0.01 U	0.05 U	
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0063 J	0.5 U	0.001 J	0.0033	0.01 U	0.05 U	
Chrysene	0.0002	mg/L	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0093 J	0.5 U	0.0016 J	0.0036	0.01 U	0.004 J	
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.00092 J	--	0.01 U	0.01 U	0.005 J	0.5 U	0.01 U	0.0002 U	0.01 U	0.05 U	
Dibenzofuran	0.001	mg/L	0.0012 J	0.0023 J	--	0.01 U	0.01 U	0.021 J	0.016 J	0.013	0.02	0.022	0.014 J	
Fluoranthene	1	mg/L	0.001 J	0.0016 J	--	0.0014 J	0.01 U	0.012 J	0.5 U	0.0074 J	0.016	0.018	0.012 J	
Fluorene	1	mg/L	0.0058 J	0.011	--	0.0062 J	0.01 U	0.11	0.066 J	0.064	0.067	0.1	0.072	
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.00094 J	--	0.01 U	0.01 U	0.0046 J	0.5 U	0.01 U	0.00099	0.01 U	0.05 U	
Naphthalene	0.02	mg/L	0.0031 J	0.019	--	0.01 U	0.01 U	3.8 D	4.1	2.6 D	6.7	8.9 J M	3.7 D	
Phenanthrene	*	mg/L	0.0046 J	0.016	--	0.0078 J	0.01 U	0.11	0.083 J	0.078	0.091	0.12	0.085	
Pyrene	1	mg/L	0.0012 J	0.0017 J	--	0.0016 J	0.01 U	0.015 J	0.5 U	0.011	0.02	0.023	0.016 J	
Inorganic Compounds														
Aluminum (fume or dust)	*	mg/L	0.055 B	0.63	--	0.06 B	1.3	0.18 B	1.8	--	0.77	1.9	10	
Antimony	0.01	mg/L	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	
Arsenic	0.05	mg/L	0.004 B	0.01 U	--	0.01 U	0.0037 B	0.01 U	0.0034 B	--	0.01 U	0.01 U	0.0088 B	
Barium	2	mg/L	0.26	0.26	--	0.19	0.17	0.49	0.51	--	0.48	0.53	0.6	
Beryllium	0.004	mg/L	0.004 U	0.004 U	--	0.004 U	0.004 U	0.004 U	0.004 U	--	0.004 U	0.004 U	0.004 U	
Cadmium	0.005	mg/L	0.005 U	0.005 U	--	0.005 U	0.0035 B	0.0011 B	0.005 U	--	0.005 U	0.006	0.0013 B	
Calcium metal	*	mg/L	15	14	--	13	14	130	140	--	120	120	130	
Chromium	0.1	mg/L	0.01 U	0.01 U	--	0.01 U	0.0025 B	0.01 U	0.0022 B	--	0.01 U	0.01 U	0.012	
Cobalt	*	mg/L	0.0021 B	0.0022 B	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.0043 B	
Copper	1.3	mg/L	0.0031 B	0.0067 B	--	0.02 U	0.015 B	0.0010 B	0.0041 B	--	0.02 U	0.02 U	0.022	
Cyanide	0.2	mg/L	0.01 U	--	--	0.01 U	0.01 U	0.011	0.01 B	--	0.012	0.015 U	0.015	
Iron	*	mg/L	8.7	10	--	10	10 N	37	40	--	36	30	48	
Lead	0.015	mg/L	0.005 U	0.005 U	--	0.005 U	0.005 U	0.0017 B	0.03	--	0.005	0.03	0.086	
Magnesium	*	mg/L	11	10	--	9.3	9.8	36	39	--	41	44	43	
Manganese	*	mg/L	0.45	0.43	--	0.41	0.43	2.1	2.6 N	--	2.8	2.6	2.9	
Mercury	0.002	mg/L	0.000087 B	0.0002 U	--	0.0002 U	0.00020 U	0.00020 U	0.0002 U	--	0.0002 U	0.0002 U	0.00028	
Nickel	0.1	mg/L	0.04 U	0.04 U	--	0.04 U	0.04 U	0.04 U	0.04 U	--	0.04 U	0.04 U	0.0071 B	
Potassium	*	mg/L	2.1	2.1	--	2.0	2.3	18	16 N	--	18	17	20	
Selenium	0.05	mg/L	0.01 U	0.0047 B	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.02	0.01 U	
Sodium	*	mg/L	21	20	--	19	20	33	32	--	31	33	39	
Thallium	0.002	mg/L	0.002 U	0.002 UW	--	0.002 U	0.002 U	0.002 U	0.002 U	--	0.001 U	0.002 U	0.002 UW	
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.0022 B	--	0.01 U	0.0027 B	0.01 U	0.0048 B	--	0.01 U	0.02	0.024	
Zinc	2	mg/L	0.056	0.02 U	--	0.02 U	0.011 B	0.0076 B	0.035	--	0.02 U	0.09	0.19	

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-09D												
		Sample Date	7/16/2004	7/16/2004	1/21/2004	1/21/2004	7/19/2003	7/19/2003	1/21/2003	1/21/2003	7/16/2002	1/16/2002	1/18/2001	7/11/2001	
		Sample ID Unit	TLC-9D-Q3-04	TLC-9D-Q3-04 DUP	TLC-9D-Q1-04	TLC-9D-Q1-04 DUP	TLC-9D-Q3-03	TLC-9D-Q3-03 DUP	TLC09D-012103	TLC09D-012103 DUP	TLC09D-071602	TLC09D-011602	TLC09D 011801	TLC09D-071101	
Volatile Organic Compounds															
Acetone	4	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	
Benzene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00012 J	0.00026 J	
Carbon Disulfide	4	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00017 J	0.001 U	0.001 U	0.00042 J	0.001 U	
Toluene	1	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.00035 J	0.001 U	0.001 U	0.001 U	0.001 U	
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0006 J	0.00052 J	0.00039 J	0.0007 J	0.00078 J	0.002 U	
Semivolatile Organic Compounds															
2-Methylnaphthalene	*	mg/L	0.0013	0.0014	0.0024	0.003	0.01 U	0.01 U	0.006 J	0.0049 J	0.0037 J	0.0097 J	0.025	0.0063 J	
Acenaphthene	2	mg/L	0.0072	0.0081	0.0095	0.012	0.012	0.013	0.018	0.017	0.011	0.026	0.045	0.02	
Acenaphthylene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Anthracene	0.0002	mg/L	0.0016	0.0019	0.0019	0.0024	0.01 U	0.01 U	0.0036 J	0.0031 J	0.0029 J	0.0048 J	0.0065 J	0.0044 J	
Benz(a)anthracene	0.0001	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Benzo(a)pyrene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Benzo(b)fluoranthene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Benzo(g,h,i)perylene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Benzo(k)fluoranthene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Chrysene	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Dibenzo(a,h)anthracene	0.003	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Dibenzofuran	0.001	mg/L	0.0002 U	0.0002 U	0.0018	0.0021	0.01 U	0.01 U	0.0052 J	0.0046 J	0.0032 J	0.0072 J	0.014	0.0062 J	
Fluoranthene	1	mg/L	0.0018	0.002	0.0018	0.0019	0.01 U	0.01 U	0.0035 J	0.0031 J	0.0025 J	0.0047 J	0.005 J	0.004 J	
Fluorene	1	mg/L	0.0032	0.0036	0.0038	0.0046	0.01 U	0.01 U	0.009 J	0.0077 J	0.0056 J	0.011	0.021	0.01	
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Naphthalene	0.02	mg/L	0.0002 U	0.0002 U	0.00039	0.00054	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0011 J	0.018	0.0031 J	
Phenanthrene	*	mg/L	0.0066	0.0074	0.0075	0.0087	0.01 U	0.01 U	0.016	0.014	0.011	0.022	0.029	0.02	
Pyrene	1	mg/L	0.0013	0.0016	0.0014	0.0015	0.01 U	0.01 U	0.0025 J	0.0024 J	0.0019 J	0.0033 J	0.0034 J	0.0032 J	
Inorganic Compounds															
Aluminum (fume or dust)	*	mg/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 B	1.2	0.051 B	0.089 B	0.72
Antimony	0.01	mg/L	0.006 U	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	2	mg/L	0.33	0.31	0.32	0.32	0.31	0.31	0.33	0.31	0.32	0.33	0.31	0.3	
Beryllium	0.004	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.0006 B	
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0008 B	0.005 U	0.005 U	0.00094 B	0.005 U	
Calcium metal	*	mg/L	18	17	20	20	18	19	19	19	18	20	22	19	
Chromium	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0024 B	0.01 U	0.01 U	0.01 UN	
Cobalt	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0024 B	0.0021 B	0.0025 B	0.0022 B	0.01 U	0.003 B	
Copper	1.3	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0015 B	0.0022 B	0.0017 B	0.02 U	0.02 U	0.02 UN	
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.015 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	37	35	32	32	29	29	40	39	39	41	34	40	
Lead	0.015	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0028 B	
Magnesium	*	mg/L	15	14	13	13	14	15	17	16	16	18	13	15	
Manganese	*	mg/L	2.1	1.9	1.7	1.7	1.6	1.7	2.1	2	2	2.1	1.8	2.1 N	
Mercury	0.002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.000089 B	0.00012 B	0.0002 U	0.0002 U	0.00020 U	0.0002 U	
Nickel	0.1	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	2.2	2	2.9	3	2.5	2.5	2	1.9	1.9	1.9	2.7	1.8	
Selenium	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ	0.01	0.01 U	0.01 U	0.0065 B	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	34	32	30	30	29	29	39	38	35	39	31	36	
Thallium	0.002	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 UW	0.002 UW	0.002 UW	0.002 U	0.002 UW	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0029 B	0.01 U	0.01 U	0.0023 B	
Zinc	2	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02	0.02	0.019 B	0.022	0.0069 B	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-09S									
		Sample Date	7/16/2004	1/21/2004	7/19/2003	1/21/2003	7/16/2002	1/16/2002	1/16/2002	7/10/2001	7/10/2001	1/18/2001
		Sample ID Unit	TLC-9S-Q3-04	TLC-9S-Q1-04	TLC-9S-Q3-03	TLC09S-012103	TLC09S-071602	TLC09S-011602	TLC09SDUP-011602	TLC09S-071001	TLC09SDUP-071001	TLC09S 011801
Volatile Organic Compounds												
Acetone	4	mg/L	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Benzene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.00015 J	0.0028	0.0012	0.0015	0.0001 J	0.00013 J	0.00038 J
Carbon Disulfide	4	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0007 J	0.001 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.00041 J	0.001 U	0.001 U	0.00041 U	0.001 U	0.00036 J	0.001 U
Toluene	1	mg/L	0.001 U	0.001 U	0.001 U	0.00033 J	0.001 U	0.001 U	0.00031 J	0.001 U	0.001 U	0.001 U
Trichloroethylene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	2	mg/L	0.002 U	0.002 U	0.002 U	0.00062 J	0.002 U	0.00069 J	0.00051 J	0.002 U	0.00052 J	0.00078 J
Semivolatile Organic Compounds												
2-Methylnaphthalene	*	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.0019 J	0.0024 J	0.0028 J	0.00093 J	0.00087 J	0.0099 J
Acenaphthene	2	mg/L	0.012	0.036	0.016	0.034	0.05	0.046	0.054	0.023	0.025	0.065
Acenaphthylene	0.0002	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0024 J
Anthracene	0.0002	mg/L	0.0027	0.01	0.01 U	0.0088 J	0.014	0.01	0.011	0.0086 J	0.0086 J	0.018
Benz(a)anthracene	0.0001	mg/L	0.0002 U	0.00054	0.01 U	0.0012 J	0.01 U	0.00059 J	0.00053 J	0.0007 J	0.00064 J	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.0002 U	0.0002 U	0.01 U	0.00094 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	0.0002	mg/L	0.0002 U	0.00038	0.01 U	0.0014 J	0.01 U	0.00049 J	0.01 U	0.0007 J	0.00057 J	0.0034 J
Dibenzo(a,h)anthracene	0.003	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Dibenzofuran	0.001	mg/L	0.00038	0.01	0.01 U	0.014	0.022	0.018	0.021	0.01	0.01	0.027
Fluoranthene	1	mg/L	0.0022	0.0087	0.01 U	0.0084 J	0.01	0.0099 J	0.0093 J	0.0078 J	0.0077 J	0.016
Fluorene	1	mg/L	0.0072	0.027	0.012	0.023	0.034	0.028	0.033	0.022	0.022	0.048
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Naphthalene	0.02	mg/L	0.00042	0.0006	0.01 U	0.01 U	0.001 J	0.00065 J	0.00079 J	0.0004 J	0.01 U	0.01 U
Phenanthrene	*	mg/L	0.005	0.039	0.021	0.041	0.064	0.054	0.061	0.042	0.043	0.075
Pyrene	1	mg/L	0.0016	0.0062	0.01 U	0.0066 J	0.0072 J	0.0068 J	0.0069 J	0.0058 J	0.0054 J	0.013
Inorganic Compounds												
Aluminum (fume or dust)	*	mg/L	0.2 U	0.2 U	1.1	1.3	0.21	0.15 U	0.067 B	0.14 B	0.43	0.23
Antimony	0.01	mg/L	0.006 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	0.05	mg/L	0.01 U	0.01 U	0.01 U	0.0057 B	0.01 U	0.01 U	0.01 U	0.0068 B	0.01 U	0.01 U
Barium	2	mg/L	0.41	0.32	0.36	0.44	0.35	0.35	0.34	0.38	0.37	0.35
Beryllium	0.004	mg/L	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.00083 B	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00078 B
Calcium metal	*	mg/L	180	99	140	190	86	120	110	160	150	160
Chromium	0.1	mg/L	0.01 U	0.01 U	0.01 U	0.0022 B	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	*	mg/L	0.01 U	0.01 U	0.01 U	0.0016 B	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	1.3	mg/L	0.02 U	0.02 U	0.02 U	0.0044 B	0.001 B	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Cyanide	0.2	mg/L	0.01 U	0.01 U	0.015 U	0.01 U	0.0096 B	0.0056 B	0.0089 B	0.01 U	0.01 U	0.01 U
Iron	*	mg/L	17	30	14	34	30	28	28	23	23	23
Lead	0.015	mg/L	0.005 U	0.005 U	0.009	0.0097	0.005 U	0.005 U	0.0015 B	0.005 U	0.005 U	0.005 U
Magnesium	*	mg/L	36	35	32	37	31	33	32	33	32	35
Manganese	*	mg/L	1.4	1.6	1.3	2.8	1.1	1.2	1.2	1.2	1.2	1.1
Mercury	0.0002	mg/L	0.0002 U	0.0002 U	0.0002 U	0.00012 B	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.00020 U
Nickel	0.1	mg/L	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	*	mg/L	13	9.6	10	9	9.8	9.4	9.2	12	11	10
Selenium	0.05	mg/L	0.01 U	0.01 U	0.02	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	*	mg/L	31	47	40	30	47	41	41	31	31	24
Thallium	0.002	mg/L	0.001 U	0.001 U	0.002 U	0.002 UW	0.0012 BW	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Vanadium (fume or dust)	0.2	mg/L	0.01 U	0.01 U	0.01	0.003 B	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	mg/L	0.02 U	0.02 U	0.03	0.028	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Notes:

-- Not analyzed

* - Not a HSRA regulated compounds

B (Inorganics) - Estimated analyte concentration

Bold - analyte detected

Bold and shaded - Analyte concentration exceeds the Type 1 RRS

D - Analyte concentration reported from secondary dilution

DB - Analyte concentration reported from secondary dilution; analyte detected in method blank

J - Estimated analyte concentration

JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits

M (Organic) - Spike sample recovery outside control limits

N - Spike sample recovery outside of control limits

RRS - Risk Reduction Standard

U - Analyte not detected at referenced detection limit

UJ - Analyte not detected; low method bias and/or matrix interference

UN - Analyte not detected; spiked sample recovery outside of control limits

UR - Analyte not detected; data rejected

UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

Appendix E-3
Summary of Historical Ground Water Sampling Data - Decommissioned Wells
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Ga

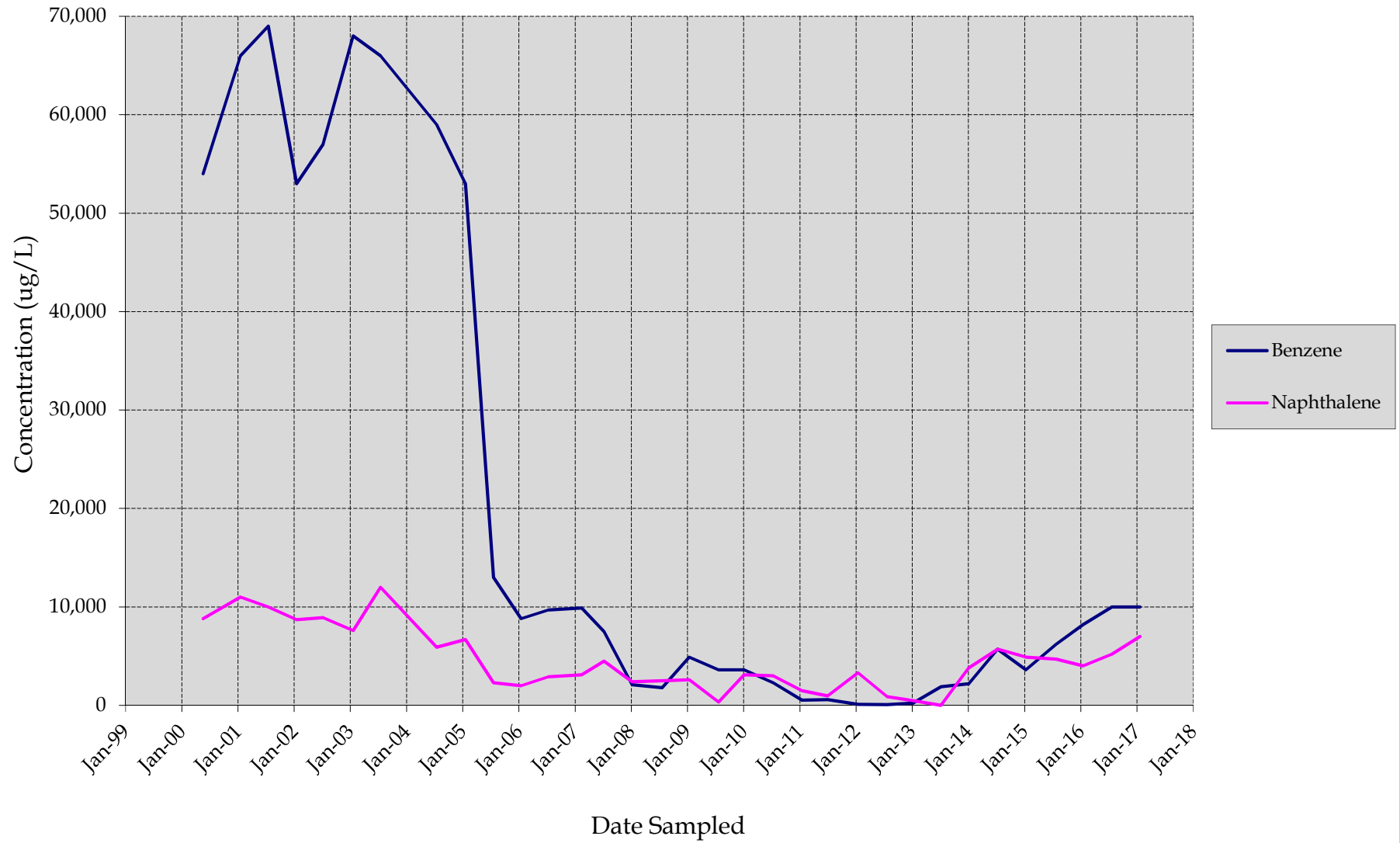
Chemical Name	Type 1 Risk Reduction Standard	Location ID	TLC-14D					TLC-14S		
		Sample Date	4/3/2002	1/15/2002	7/10/2001	1/22/2001	1/22/2001	1/15/2002	7/11/2001	1/23/2001
		Sample ID Unit	TLC14D-040302	TLC14D-011502	TLC14D-071001	010114D 012201	TLC14D	TLC14S-011502	TLC14S-071101	TLC14S 012301
Volatile Organic Compounds										
Acetone	4	mg/L	--	0.025 U	0.025 U	0.025 U	0.025 U	0.018 J	0.022 J	0.025 U
Benzene	0.005	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon Disulfide	4	mg/L	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichloromethane	0.005	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethylbenzene	0.7	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	1	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethylene	0.005	mg/L	0.001 U	0.00027 J	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	2	mg/L	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Semivolatile Organic Compounds										
2-Methylnaphthalene	*	mg/L	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Acenaphthene	2	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0042 J	0.0039 J
Acenaphthylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Anthracene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0008 J	0.01 U
Benzo(a)anthracene	0.0001	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Benzo(a)pyrene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Benzo(b)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Benzo(g,h,i)perylene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Benzo(k)fluoranthene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Chrysene	0.0002	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Dibenzo(a,h)anthracene	0.003	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Dibenzofuran	0.001	mg/L	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Fluoranthene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.00077 J	0.00076 J
Fluorene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0012 J	0.00095 J
Indeno(1,2,3-cd)pyrene	0.0004	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Naphthalene	0.02	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.017 U	0.01 U
Phenanthrene	*	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.005 J	0.0022 J
Pyrene	1	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0012 J	0.00095 J
Inorganic Compounds										
Aluminum (fume or dust)	*	mg/L	--	0.21 N	0.52	5.8 N	3.1 N	--	--	--
Antimony	0.01	mg/L	--	0.020 U	0.02 U	0.02 U	0.02 U	--	--	--
Arsenic	0.05	mg/L	--	0.010 U	0.01 U	0.01 U	0.01 U	--	--	--
Barium	2	mg/L	--	0.26	0.26	0.3	0.29	--	--	--
Beryllium	0.004	mg/L	--	0.0040 U	0.004 U	0.004 U	0.004 U	--	--	--
Cadmium	0.005	mg/L	--	0.0050 U	0.005 U	0.005 U	0.005 U	--	--	--
Calcium metal	*	mg/L	--	27	29	29	30	--	--	--
Chromium	0.1	mg/L	--	0.010 U	0.01 U	0.0068 B	0.0037 B	--	--	--
Cobalt	*	mg/L	--	0.010 U	0.0024 B	0.0029 B	0.0022 B	--	--	--
Copper	1.3	mg/L	--	0.020 U	0.02 U	0.0078 B	0.0049 B	--	--	--
Cyanide	0.2	mg/L	--	0.010 U	0.01 U	0.01 U	0.01 U	--	--	--
Iron	*	mg/L	--	12 N	13	14	14	--	--	--
Lead	0.015	mg/L	--	0.0017 B	0.005 U	0.011	0.0041 B	--	--	--
Magnesium	*	mg/L	--	19	20	20	21	--	--	--
Manganese	*	mg/L	--	1.7	1.8	1.8	1.9	--	--	--
Mercury	0.002	mg/L	--	0.00020 U	0.00020 U	0.00020 U	0.00020 U	--	--	--
Nickel	0.1	mg/L	--	0.040 U	0.04 U	0.04 U	0.04 U	--	--	--
Potassium	*	mg/L	--	2.7	2.8	3.0	2.9	--	--	--
Selenium	0.05	mg/L	--	0.010 U	0.0048 B	0.01 U	0.01 U	--	--	--
Sodium	*	mg/L	--	19	19	19	20	--	--	--
Thallium	0.002	mg/L	--	0.0020 U	0.002 U	0.002 U	0.002 UW	--	--	--
Vanadium (fume or dust)	0.2	mg/L	--	0.010 U	0.01 U	0.0069 B	0.0035 B	--	--	--
Zinc	2	mg/L	--	0.020 U	0.02 U	0.016 B	0.022	--	--	--

Notes:
-- - Not analyzed
* - Not a HSRA regulated compounds
B (Inorganics) - Estimated analyte concentration
Bold - analyte detected
Bold and shaded - Analyte concentration exceeds the Type 1 RRS
D - Analyte concentration reported from secondary dilution
DB - Analyte concentration reported from secondary dilution; analyte detected in method blank
J - Estimated analyte concentration
JB (Organic) - Estimated analyte concentration; analyte detected in method blank

JM (Organic) - Estimated analyte concentration; spike sample recovery outside control limits
M (Organic) - Spike sample recovery outside control limits
N - Spike sample recovery outside of control limits
RRS - Risk Reduction Standard
U - Analyte not detected at referenced detection limit
UJ - Analyte not detected; low method bias and/or matrix interference
UN - Analyte not detected; spiked sample recovery outside of control limits
UR - Analyte not detected; data rejected
UWN - Analyte not detected; post digestion spike and spike sample recovery outside control limits

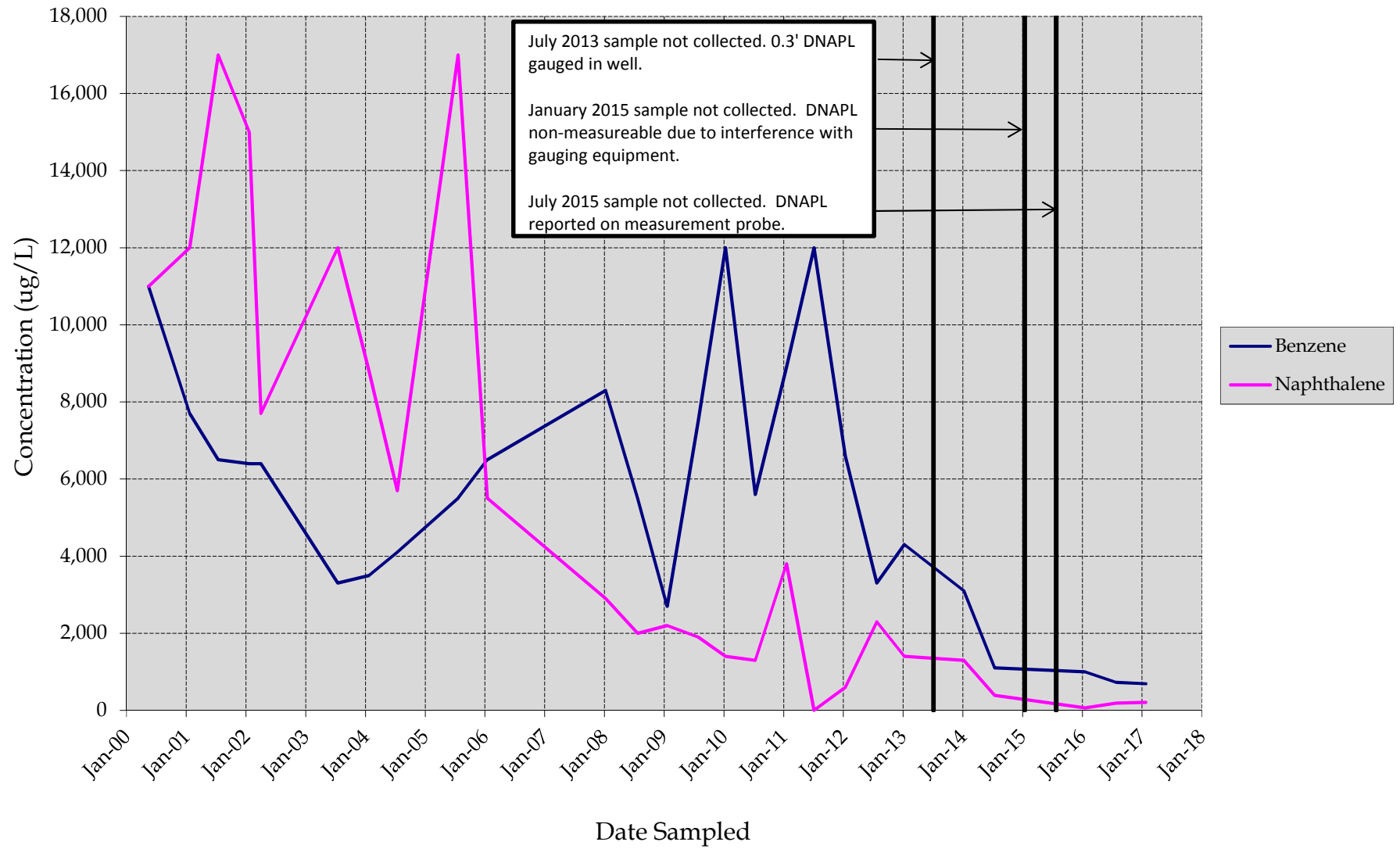
APPENDIX F
CONCENTRATION TREND GRAPHS

MW-12



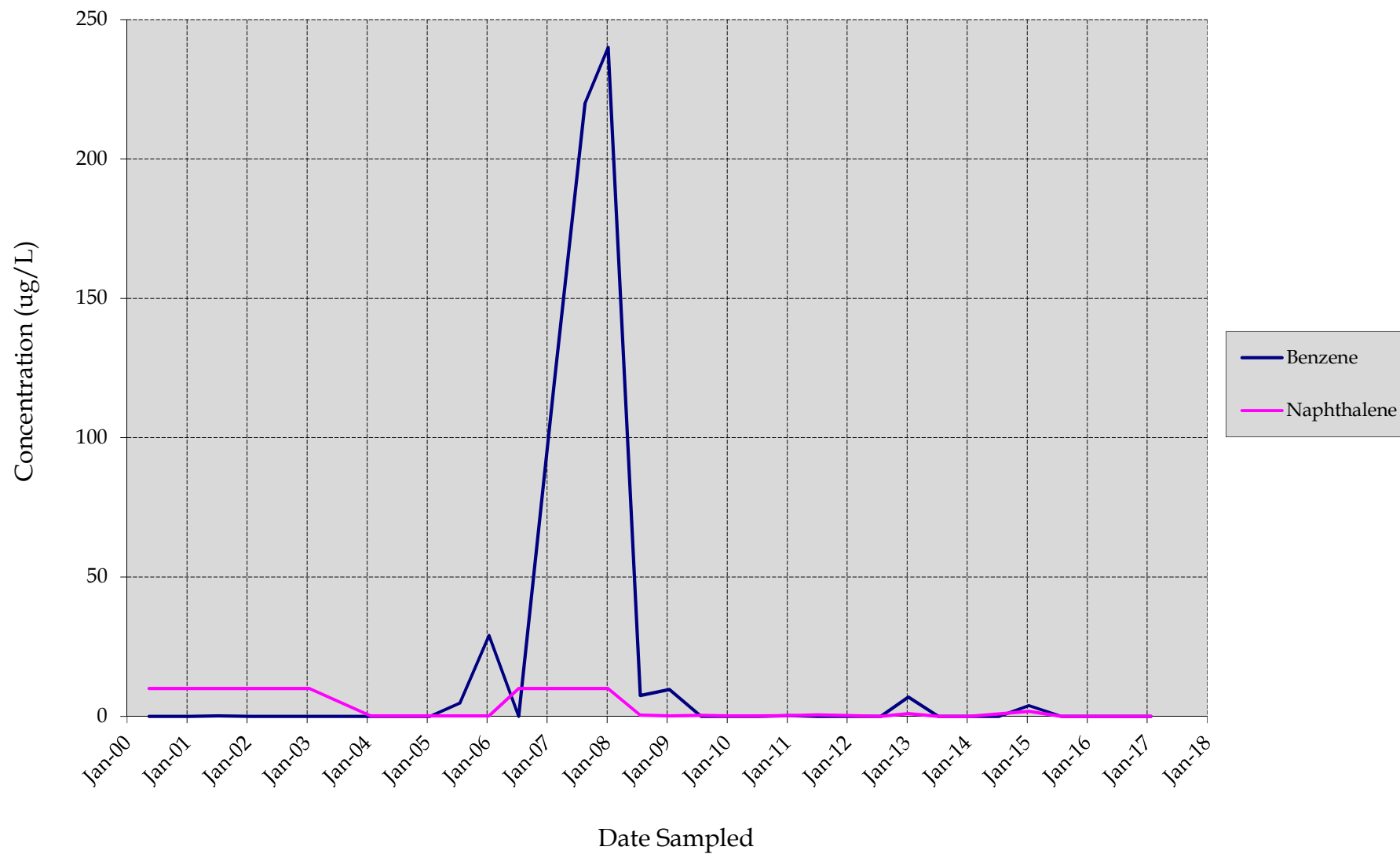
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-205



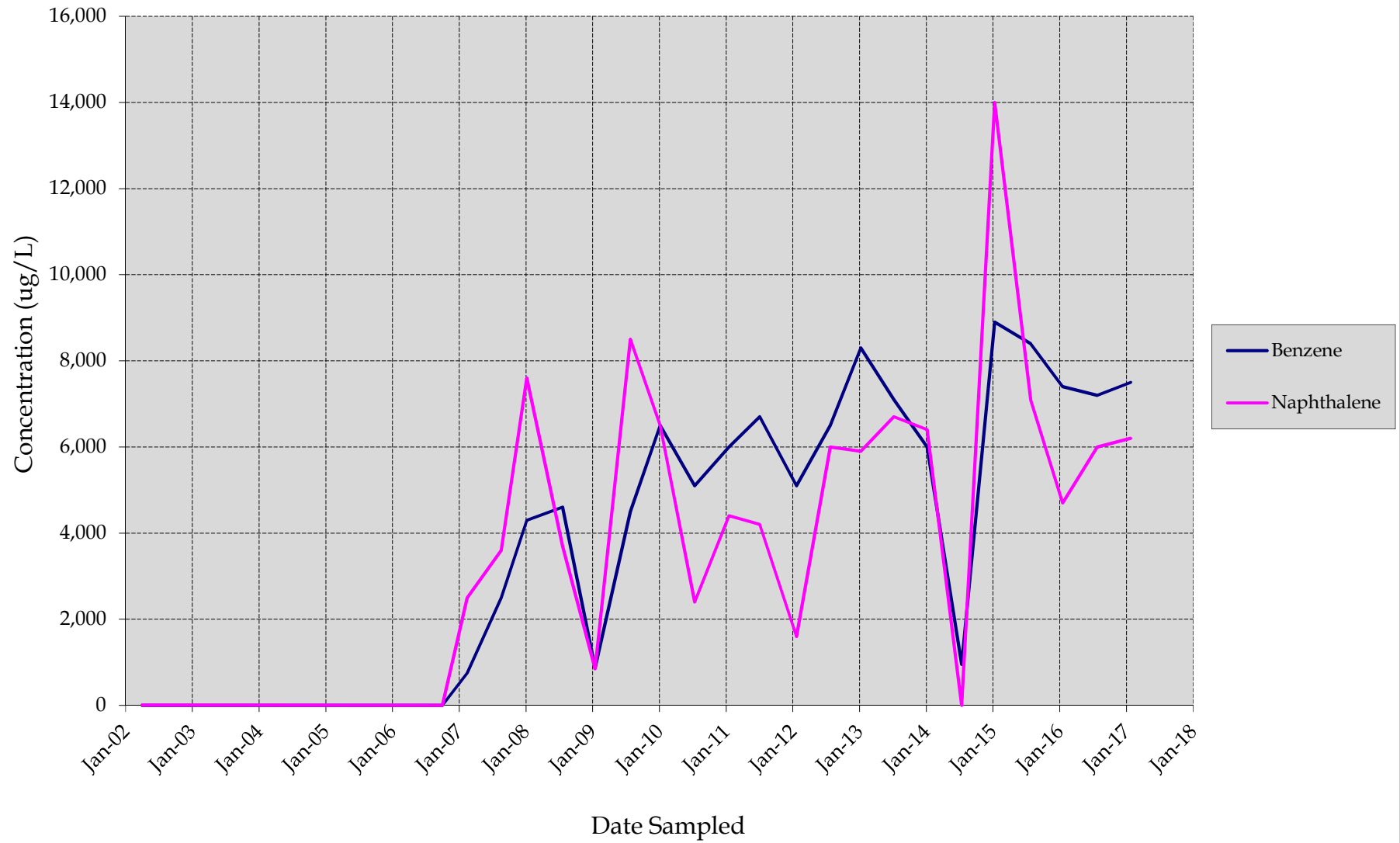
Prepared by/date: MME 3/8/17
 Checked by/date: RJB 3/13/17

MW-206



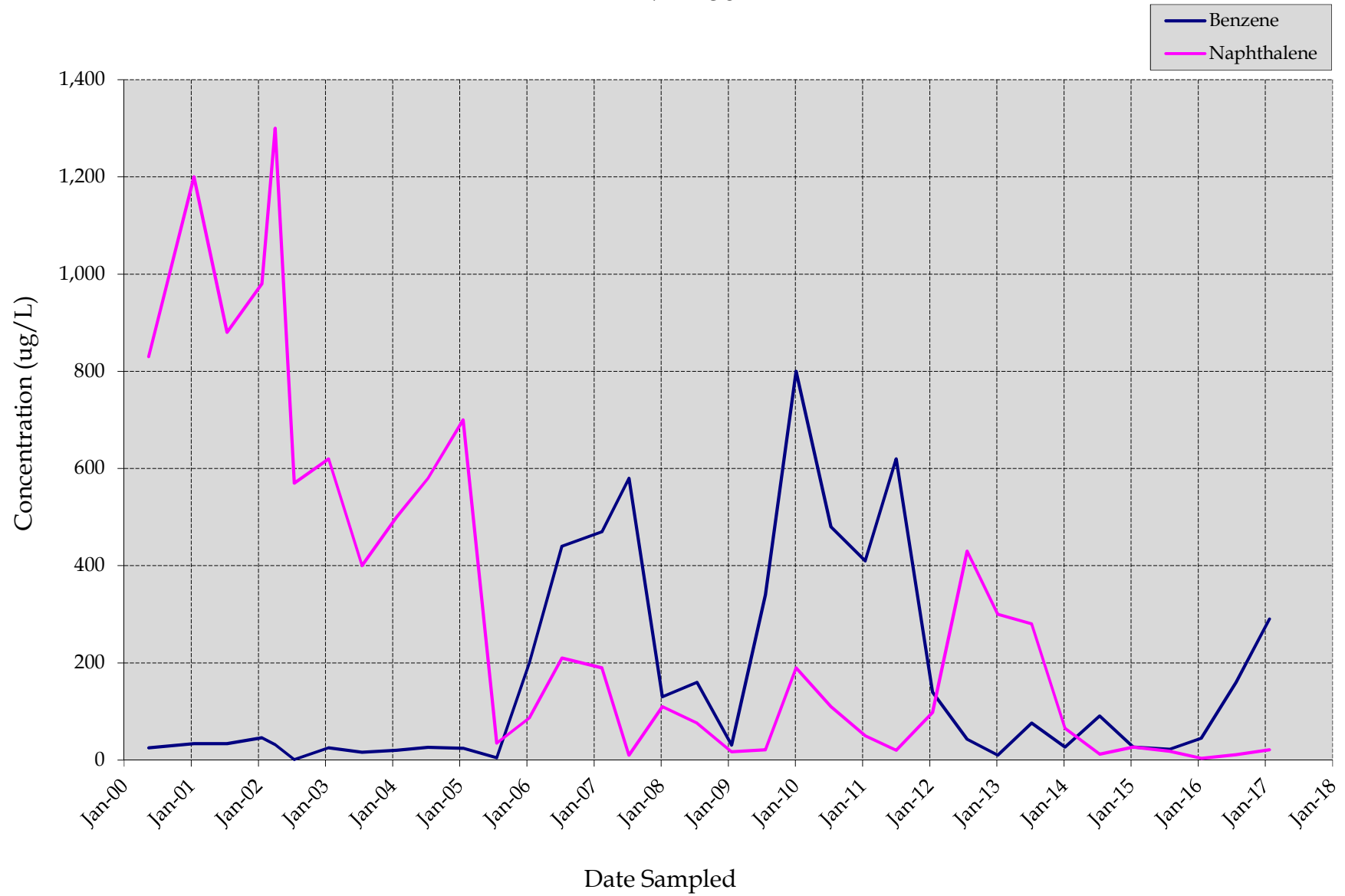
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-213



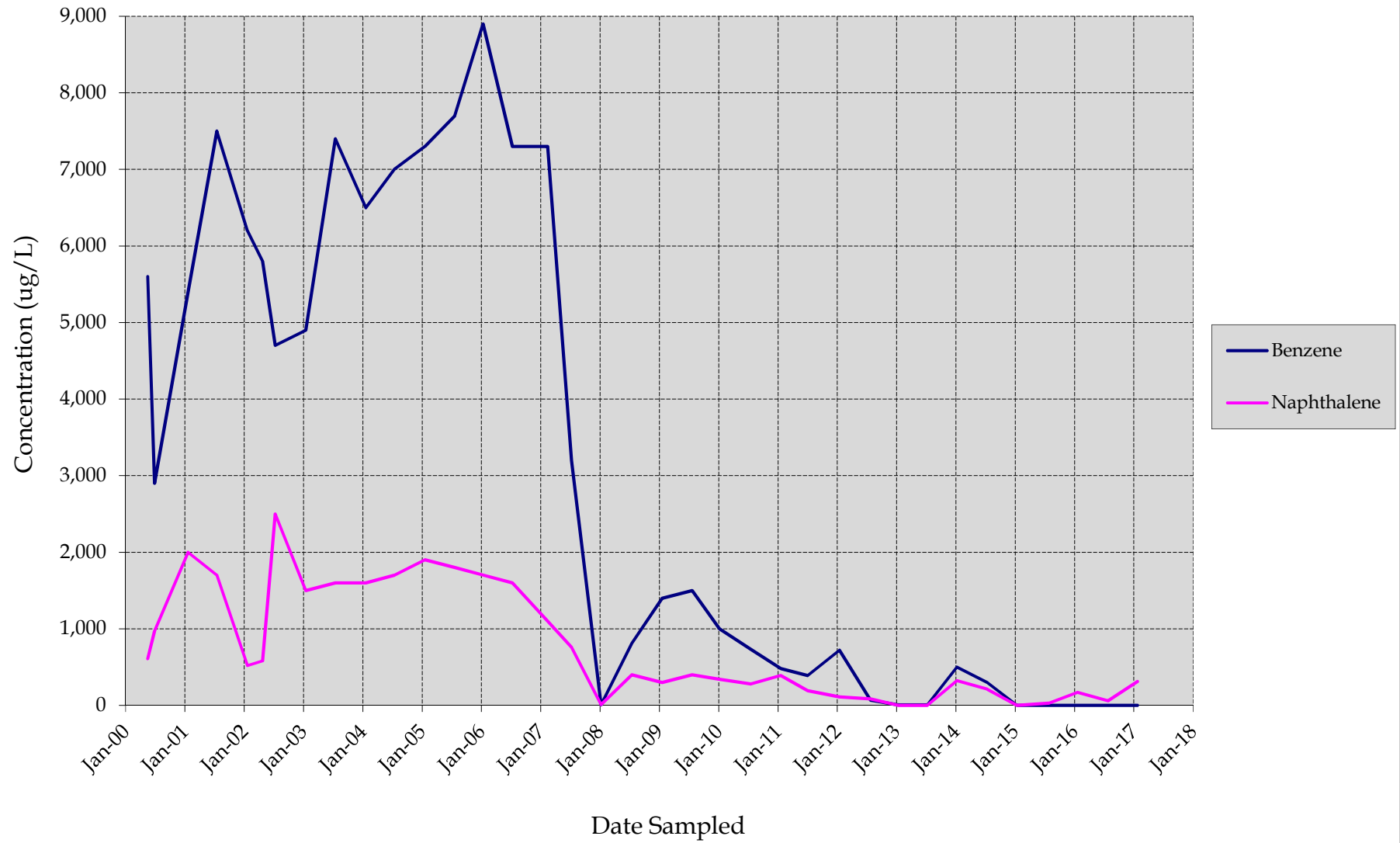
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-304



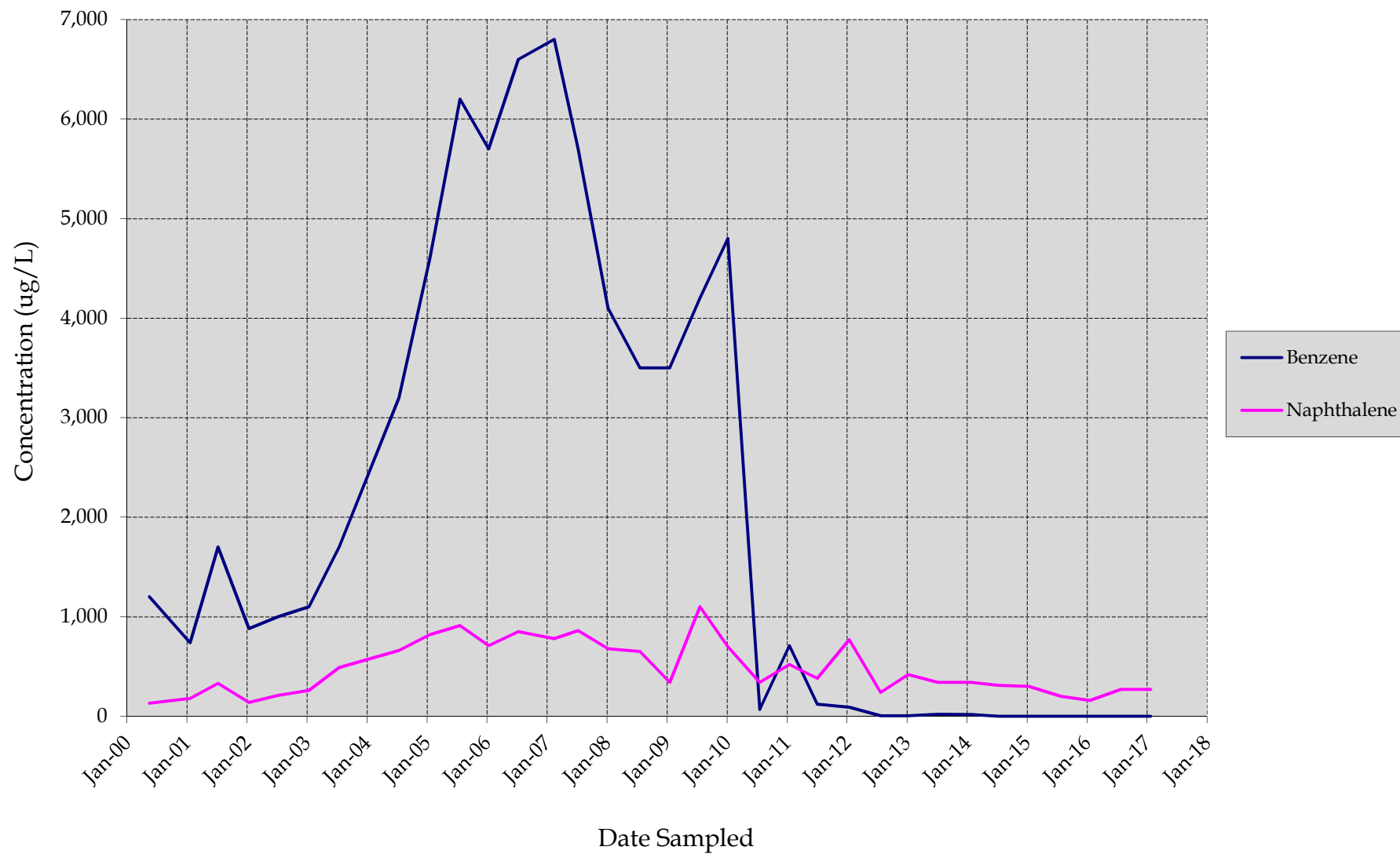
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-306BR



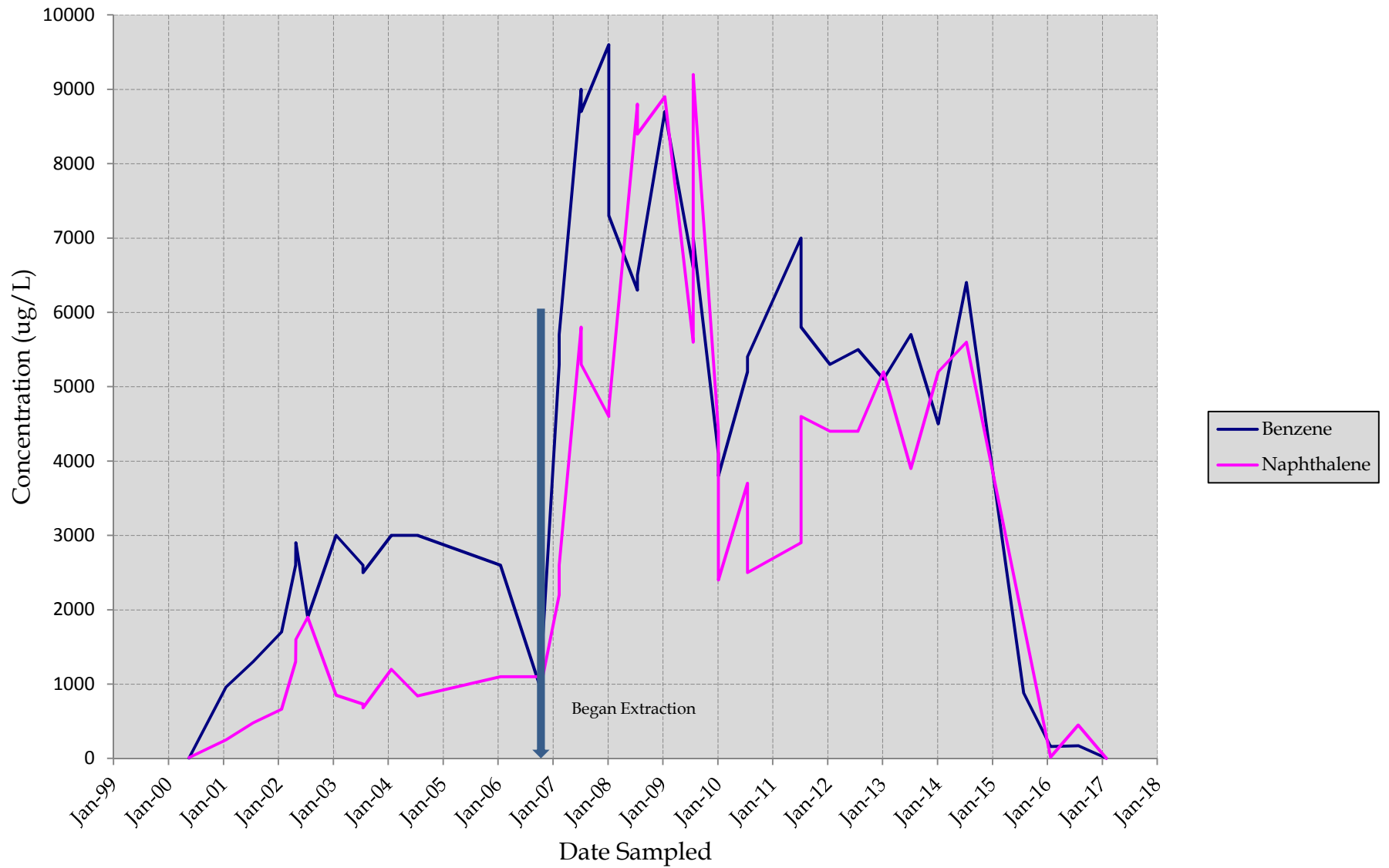
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-306TZ



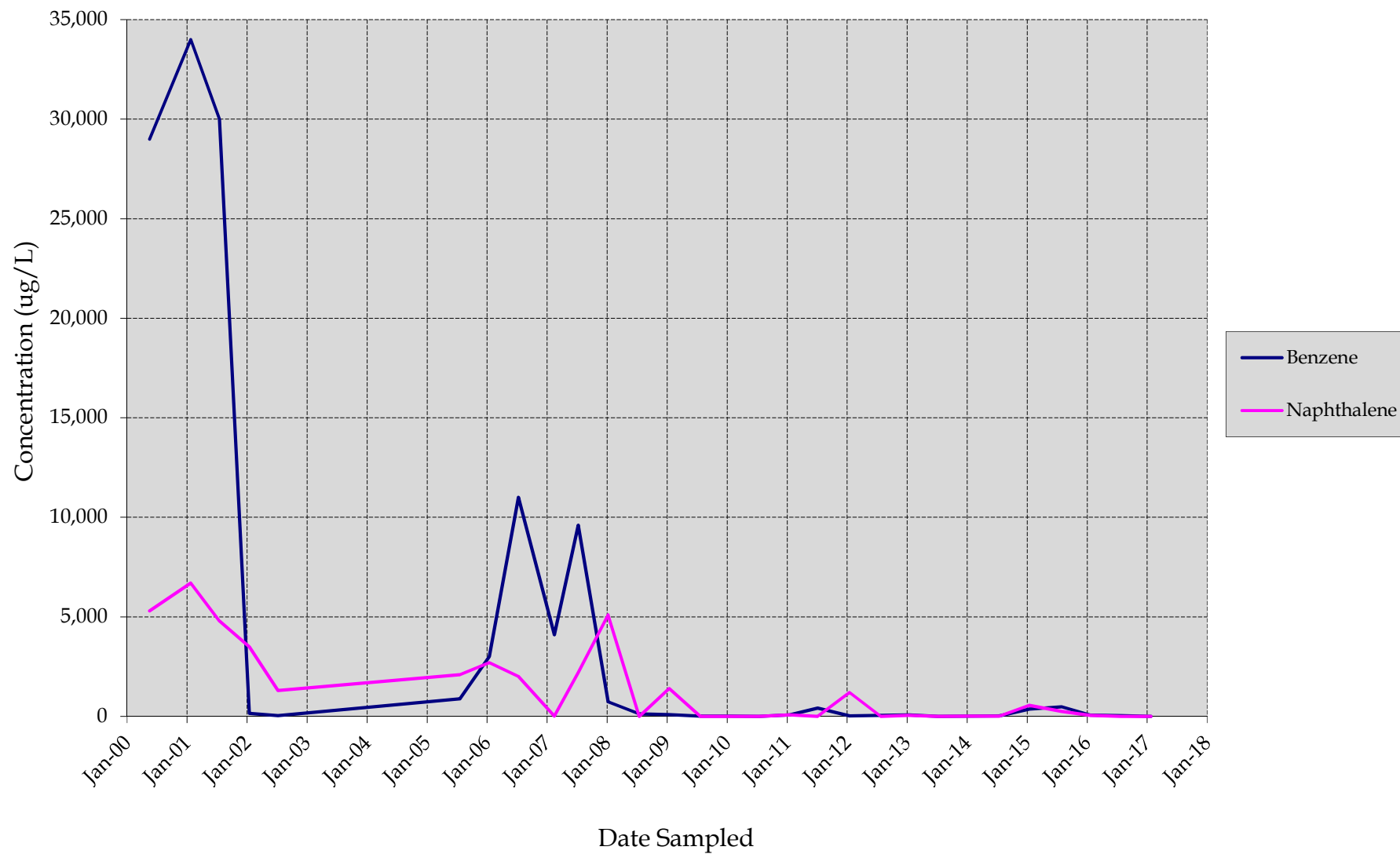
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-308BR



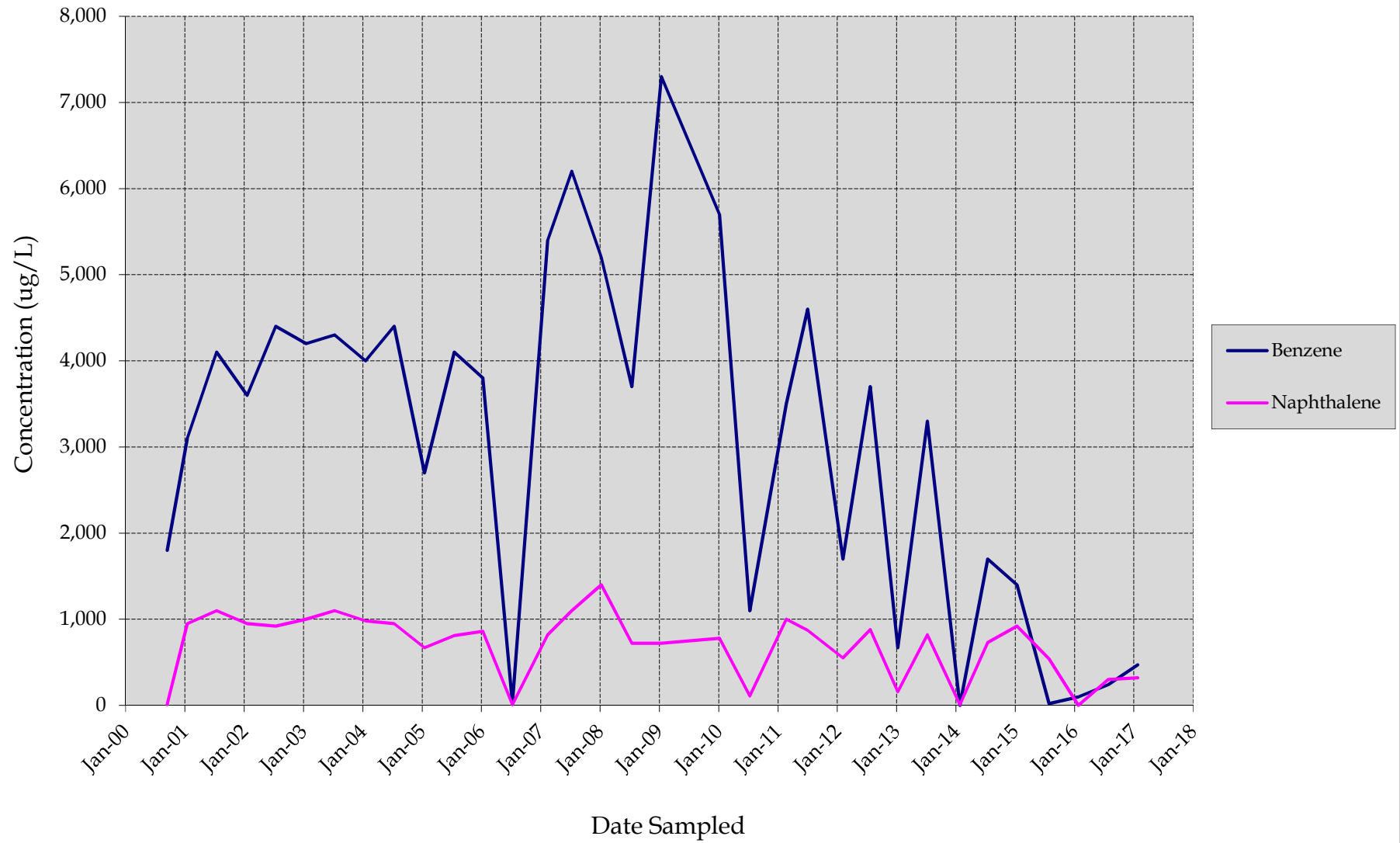
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-311



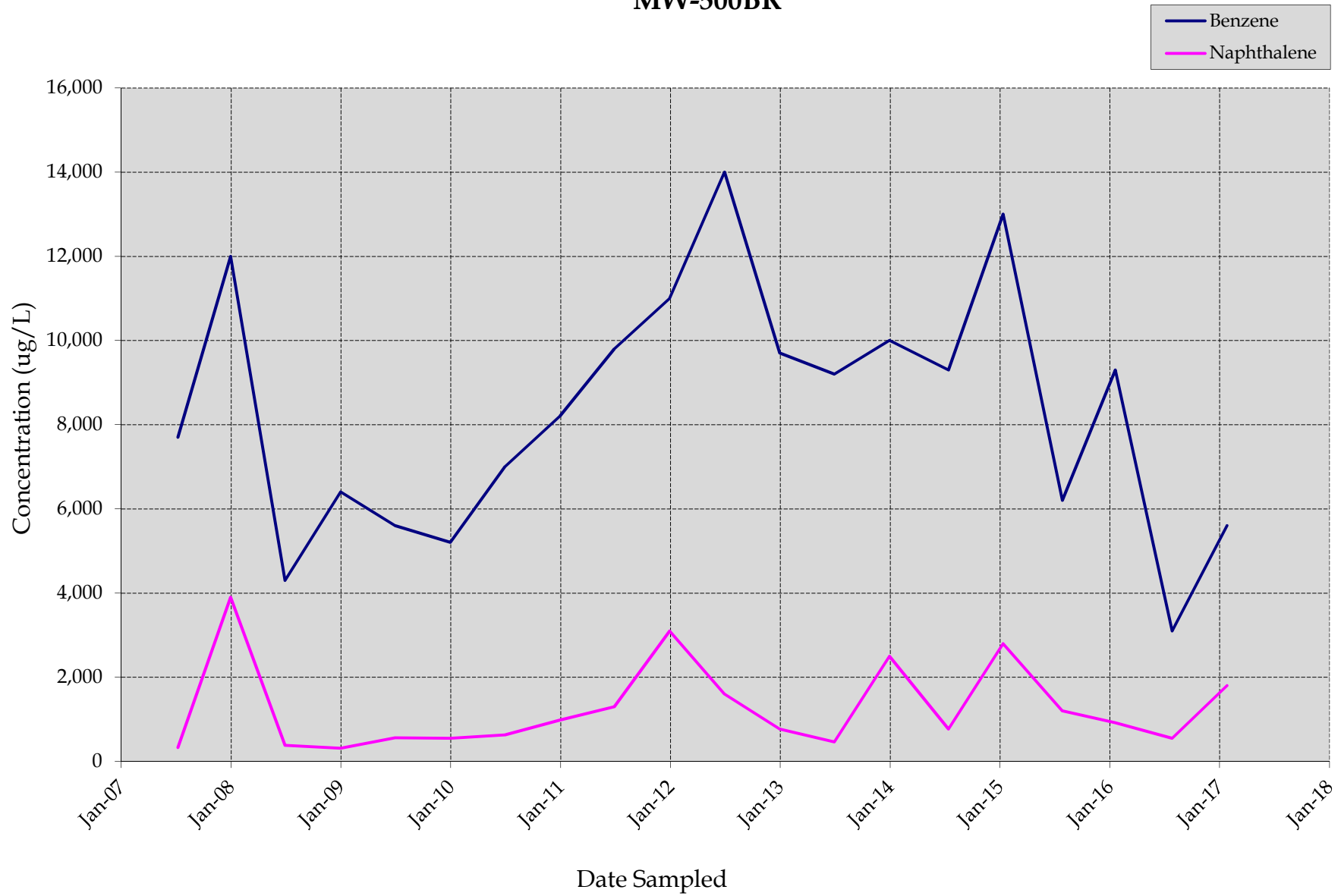
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-318



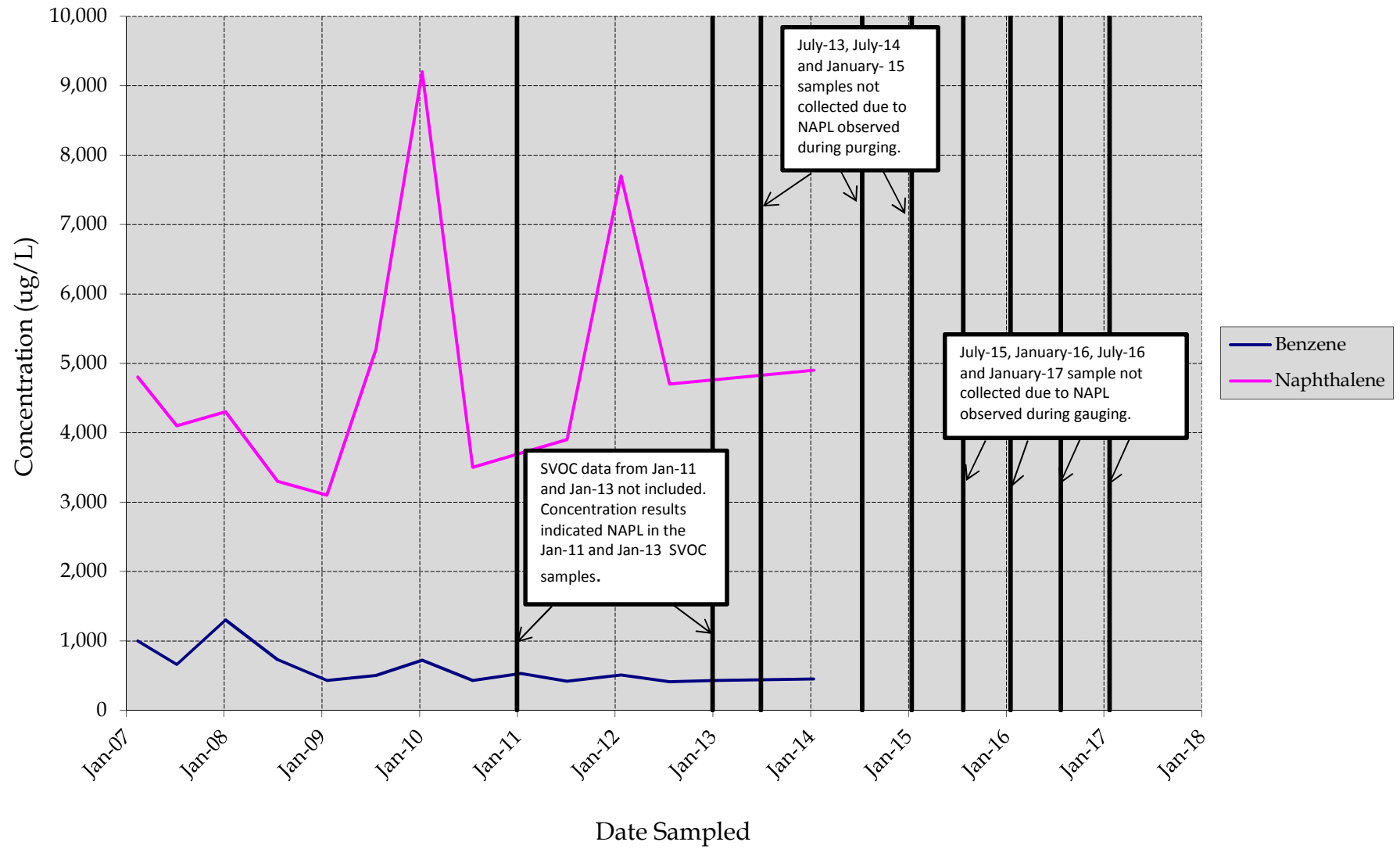
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-500BR



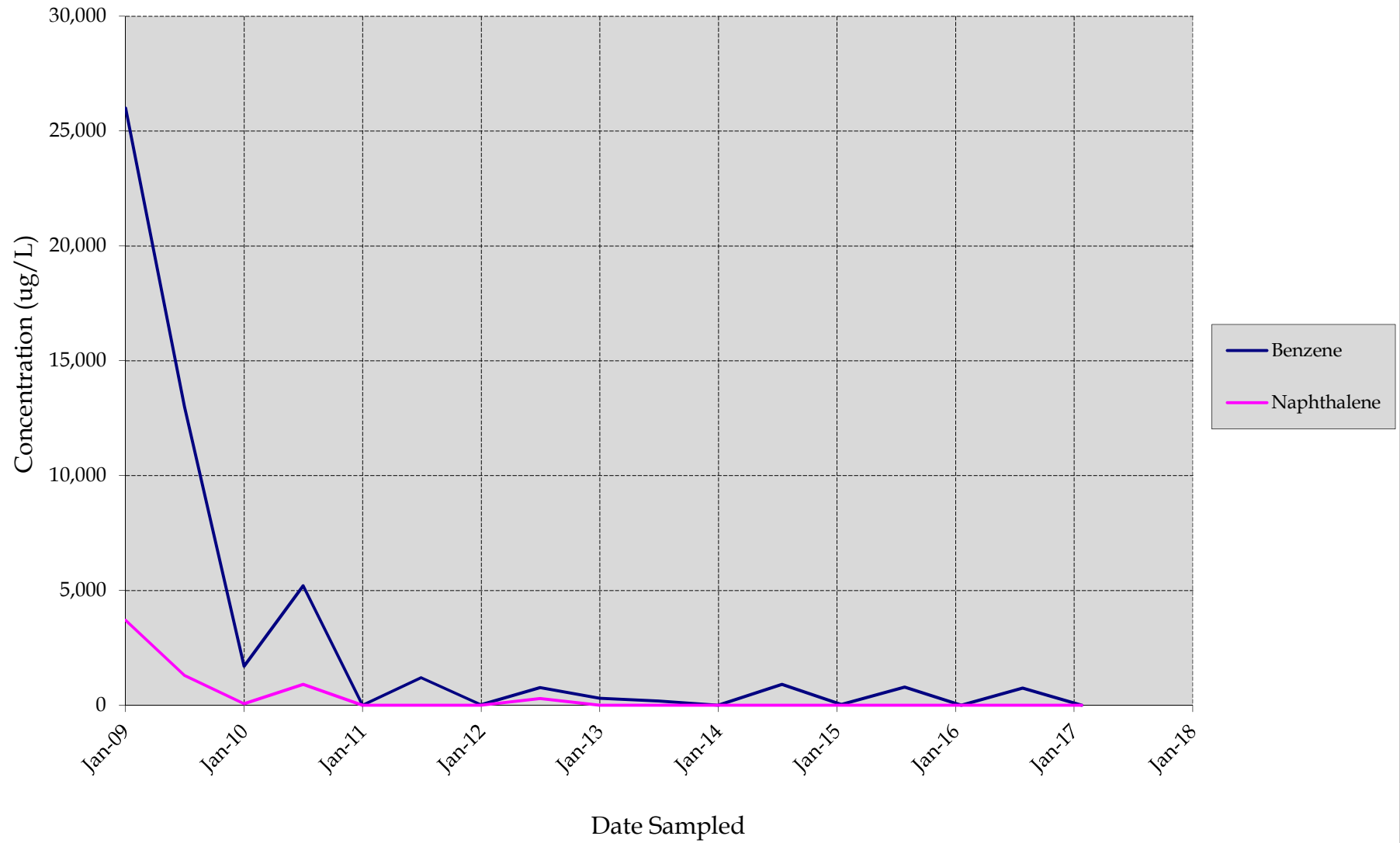
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-502D



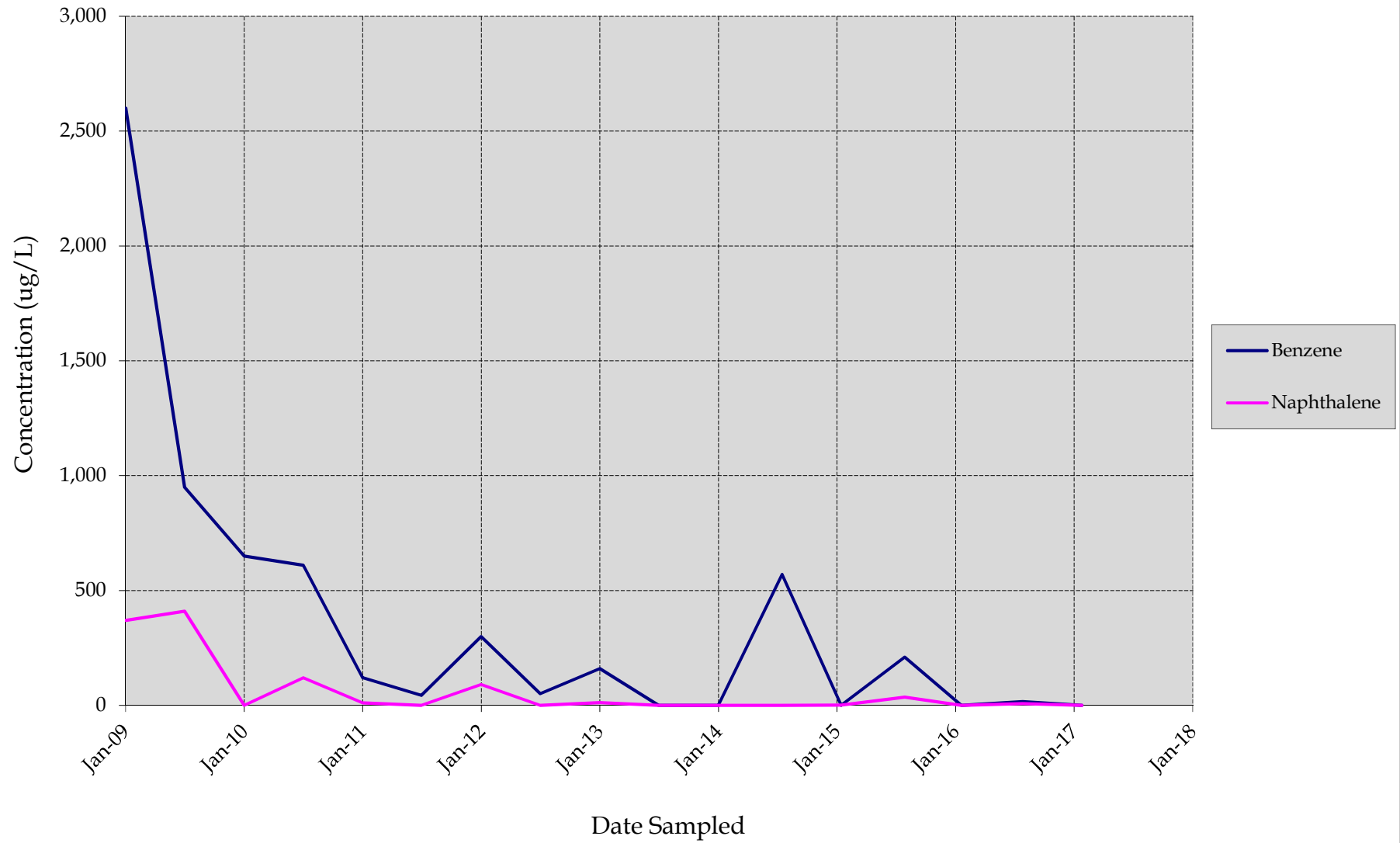
Prepared by/date: MME 3/8/17
 Checked by/date: RJB 3/13/17

MW-503BR



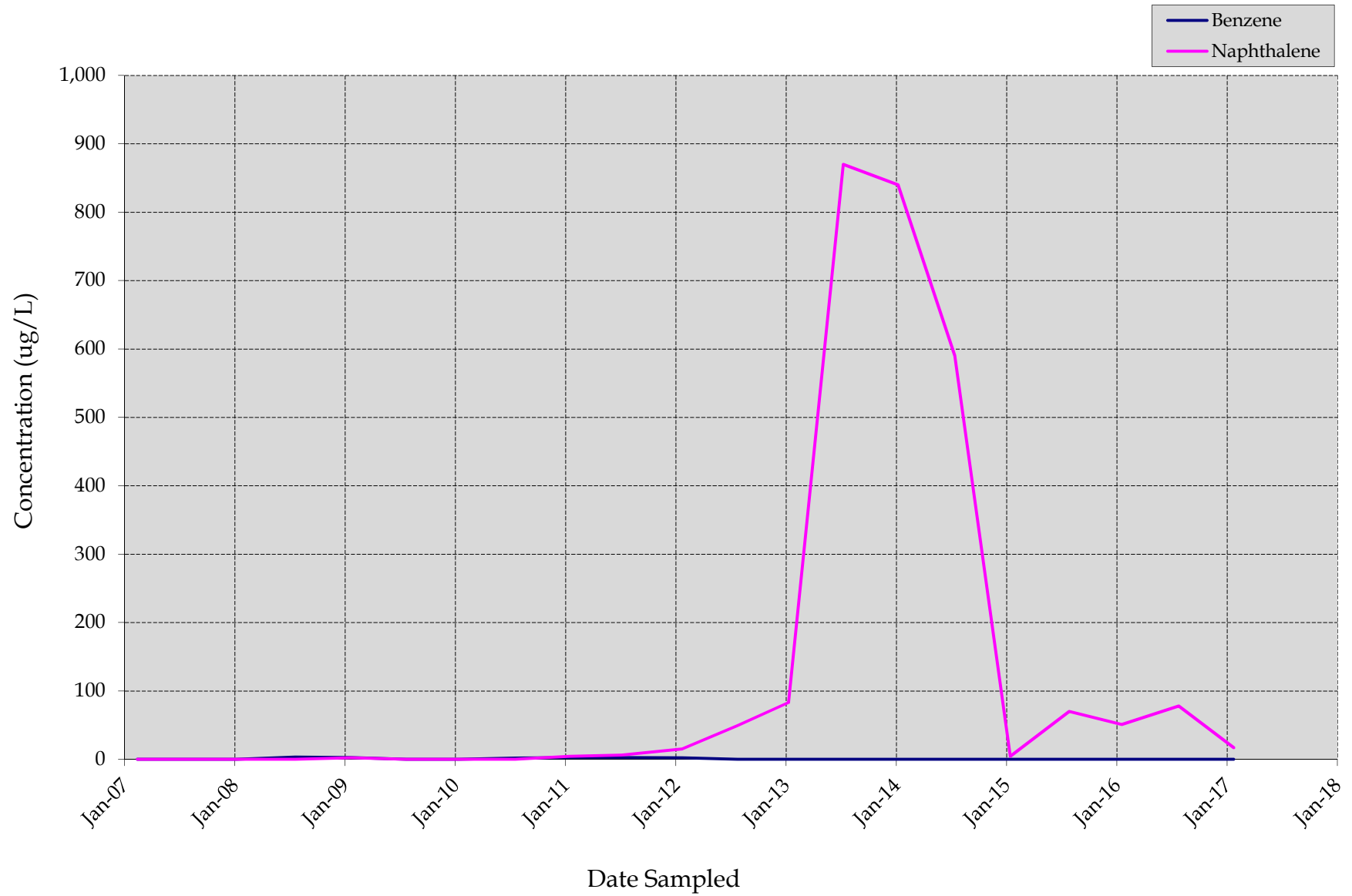
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-504BR



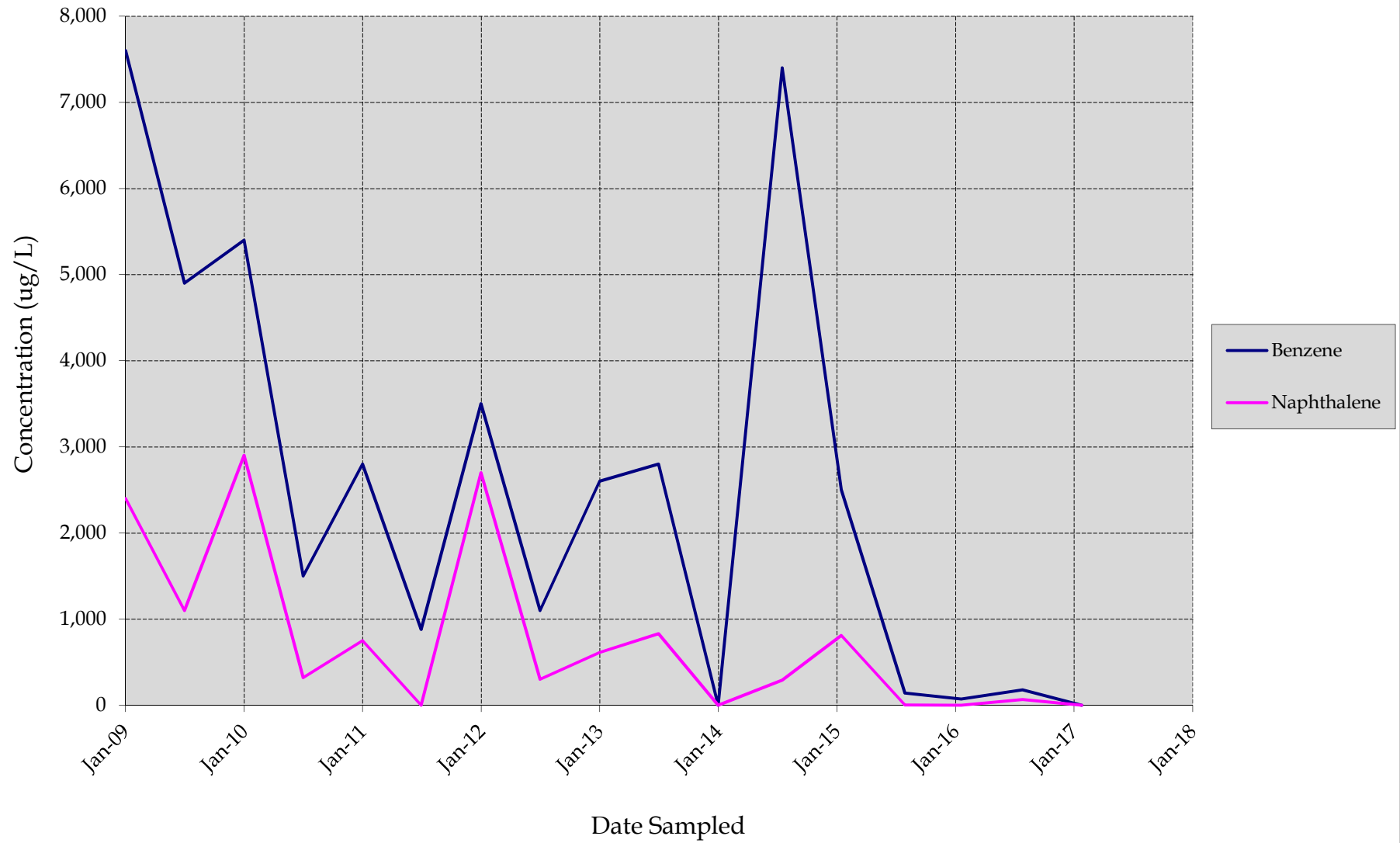
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-505D



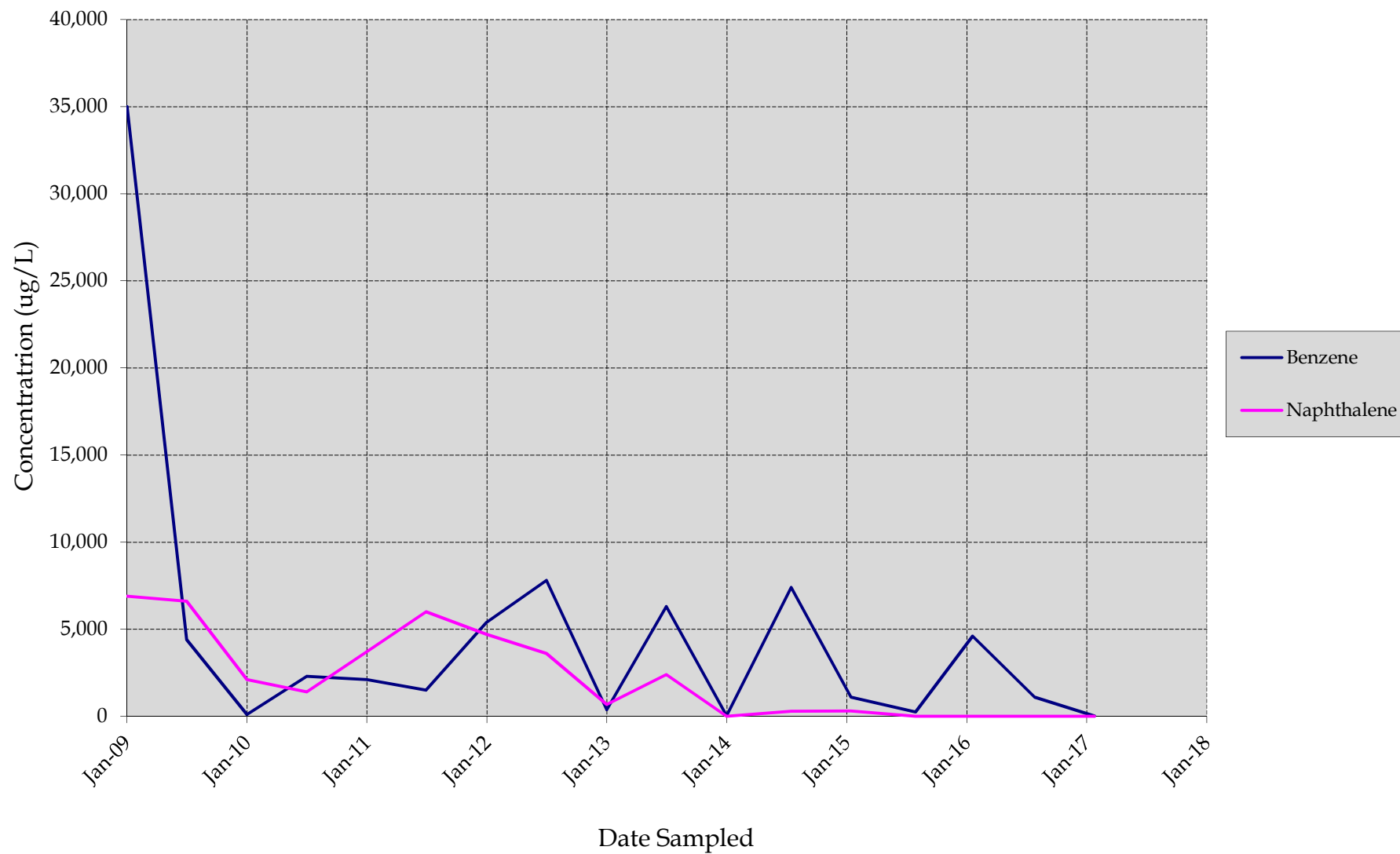
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-509BR



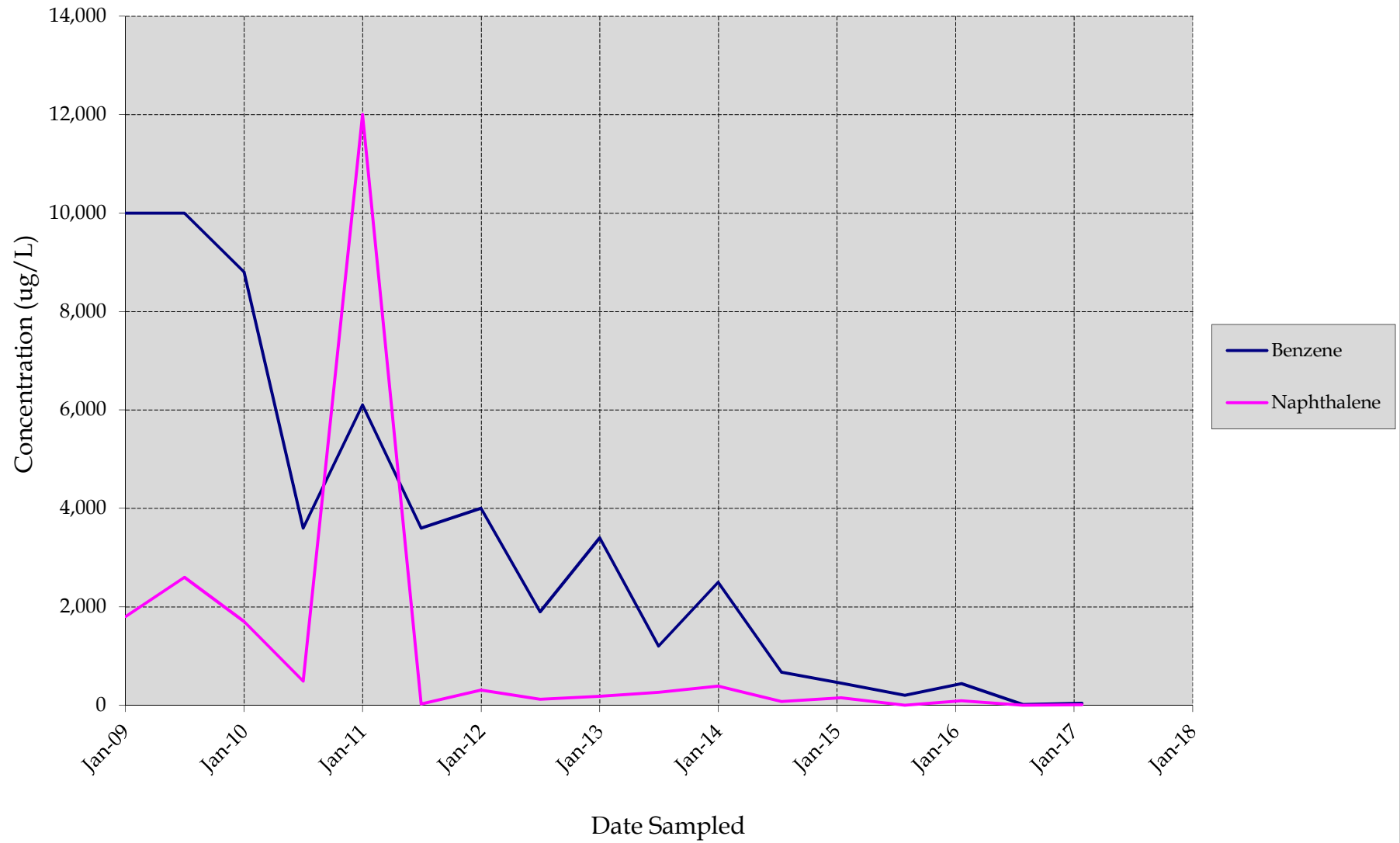
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-510BR



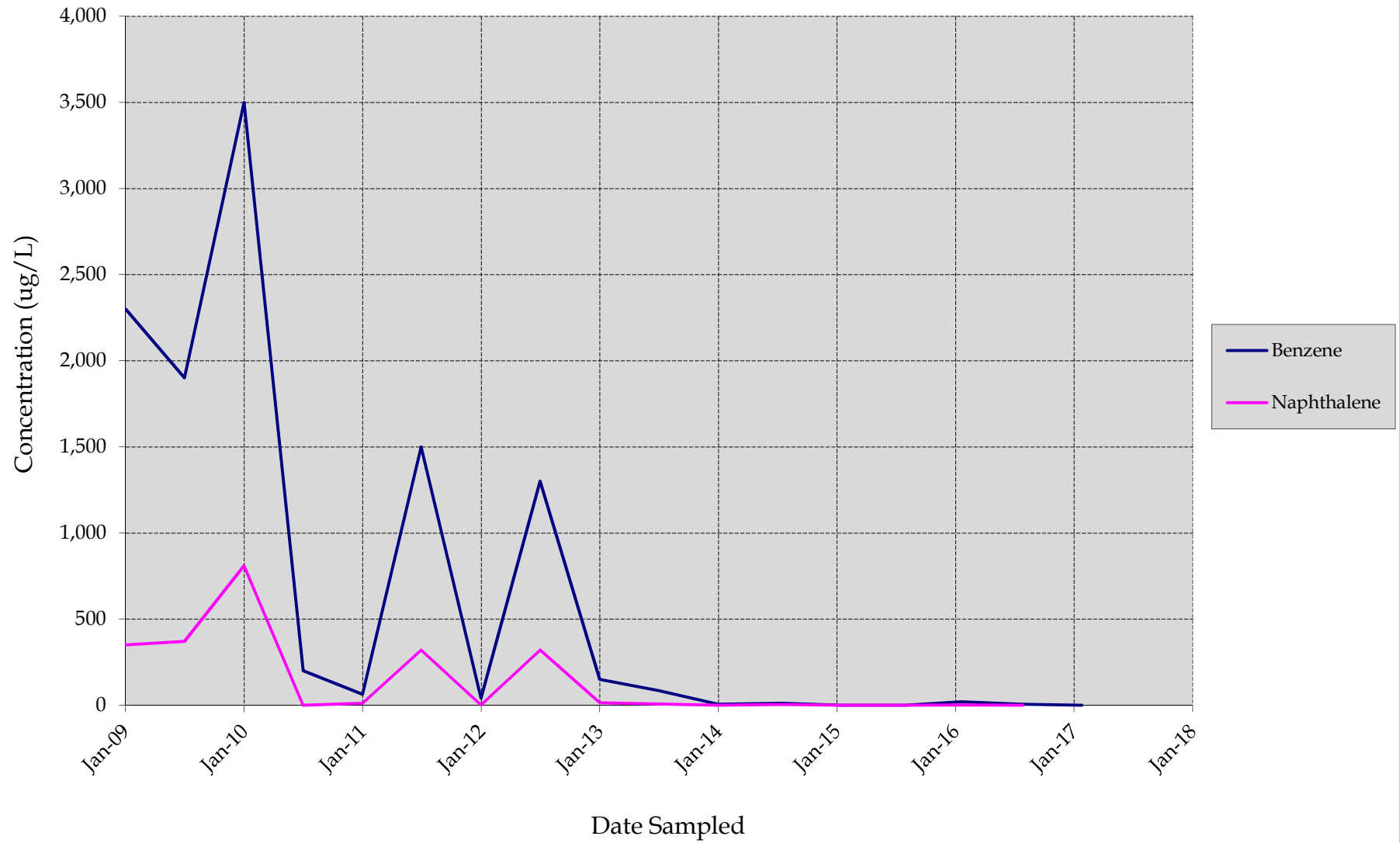
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-511BR



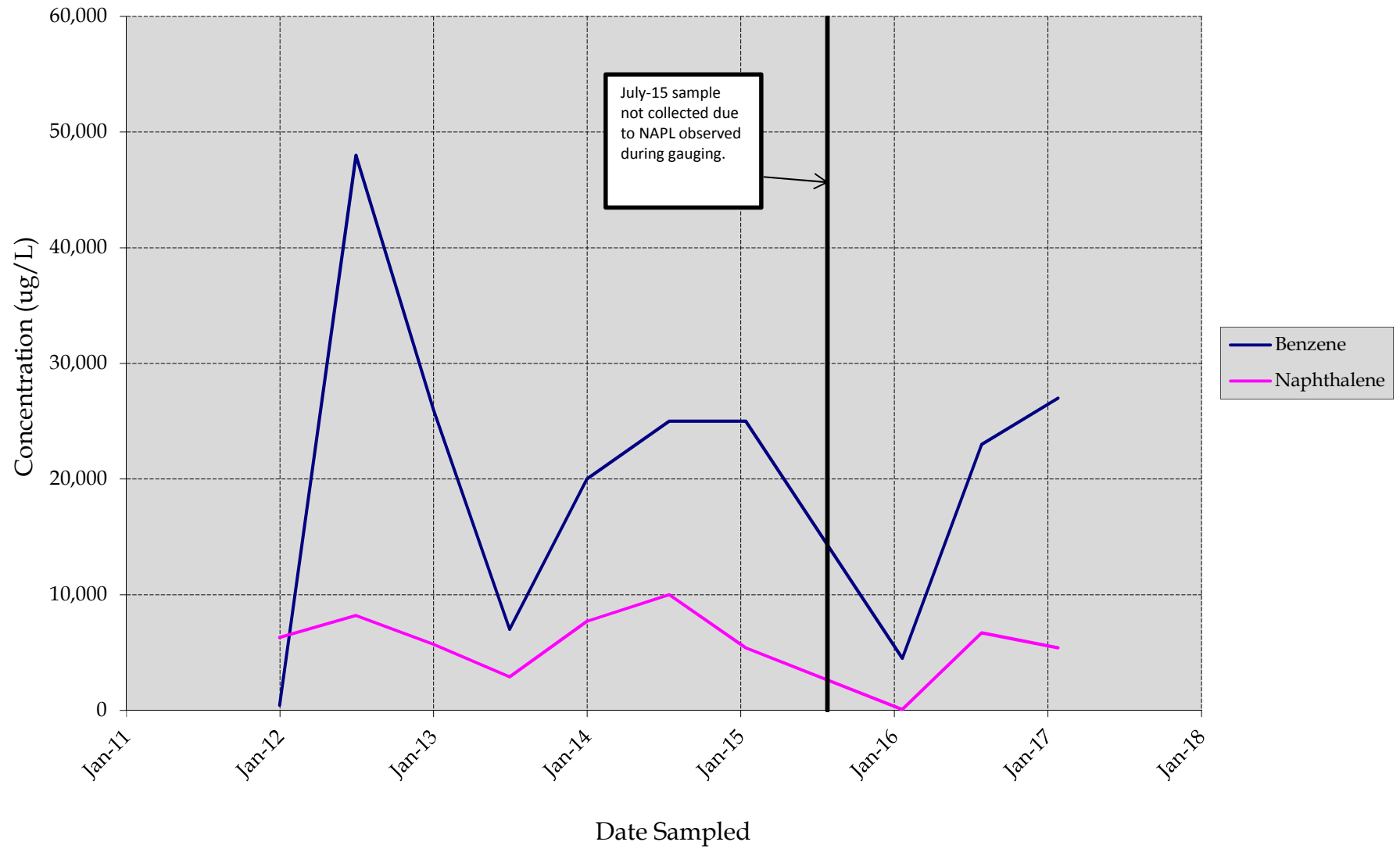
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-512BR



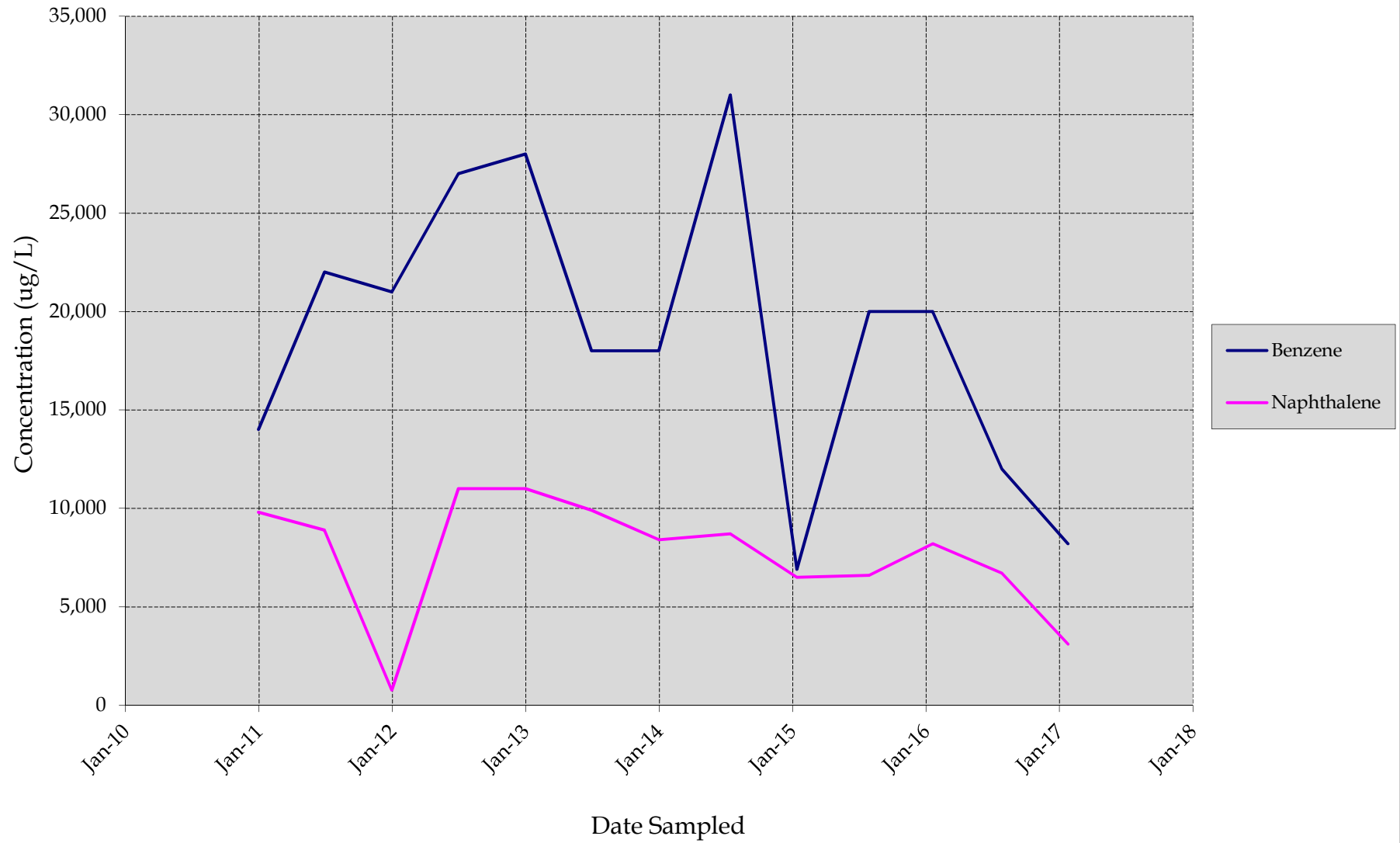
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-600



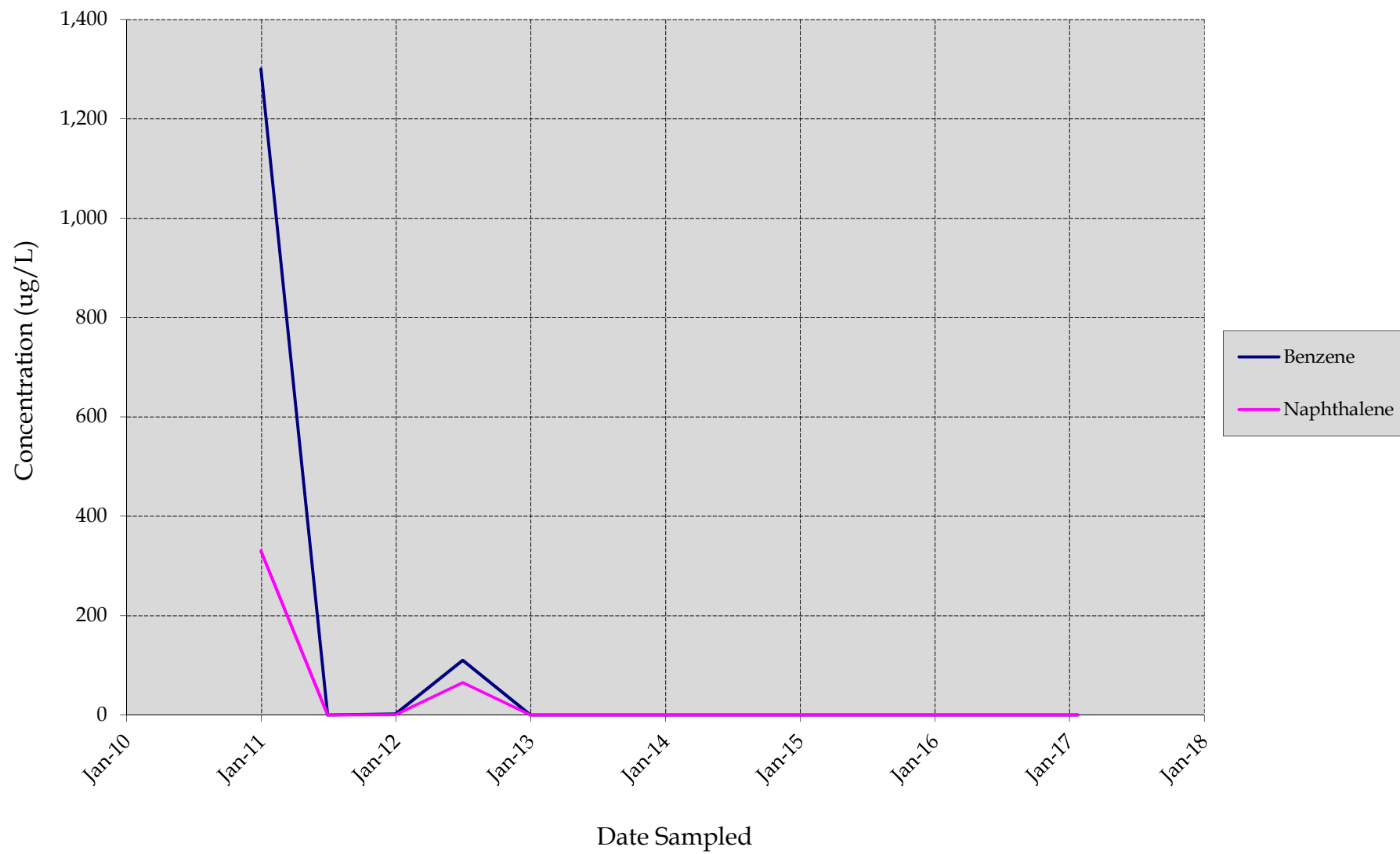
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-601



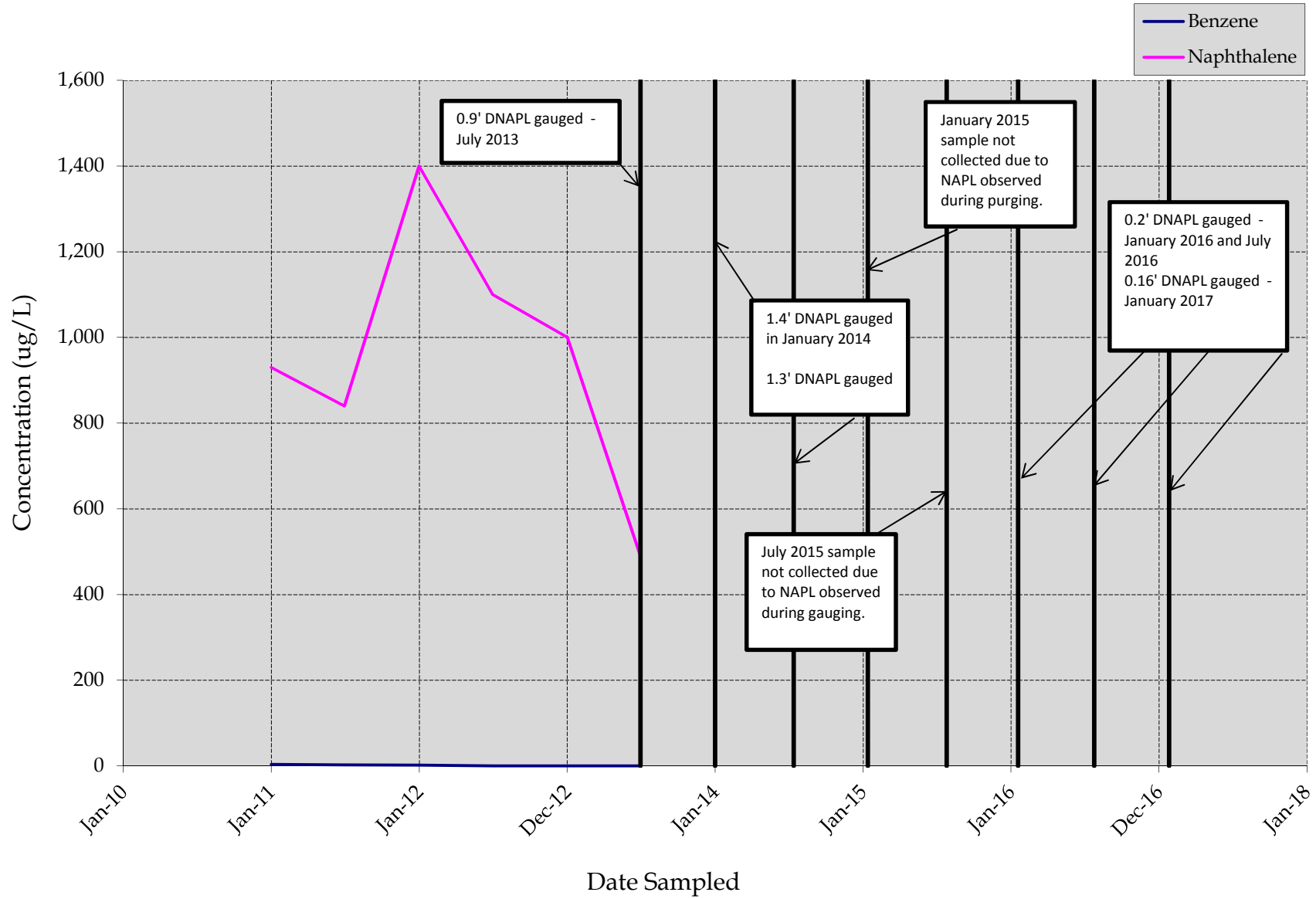
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-602



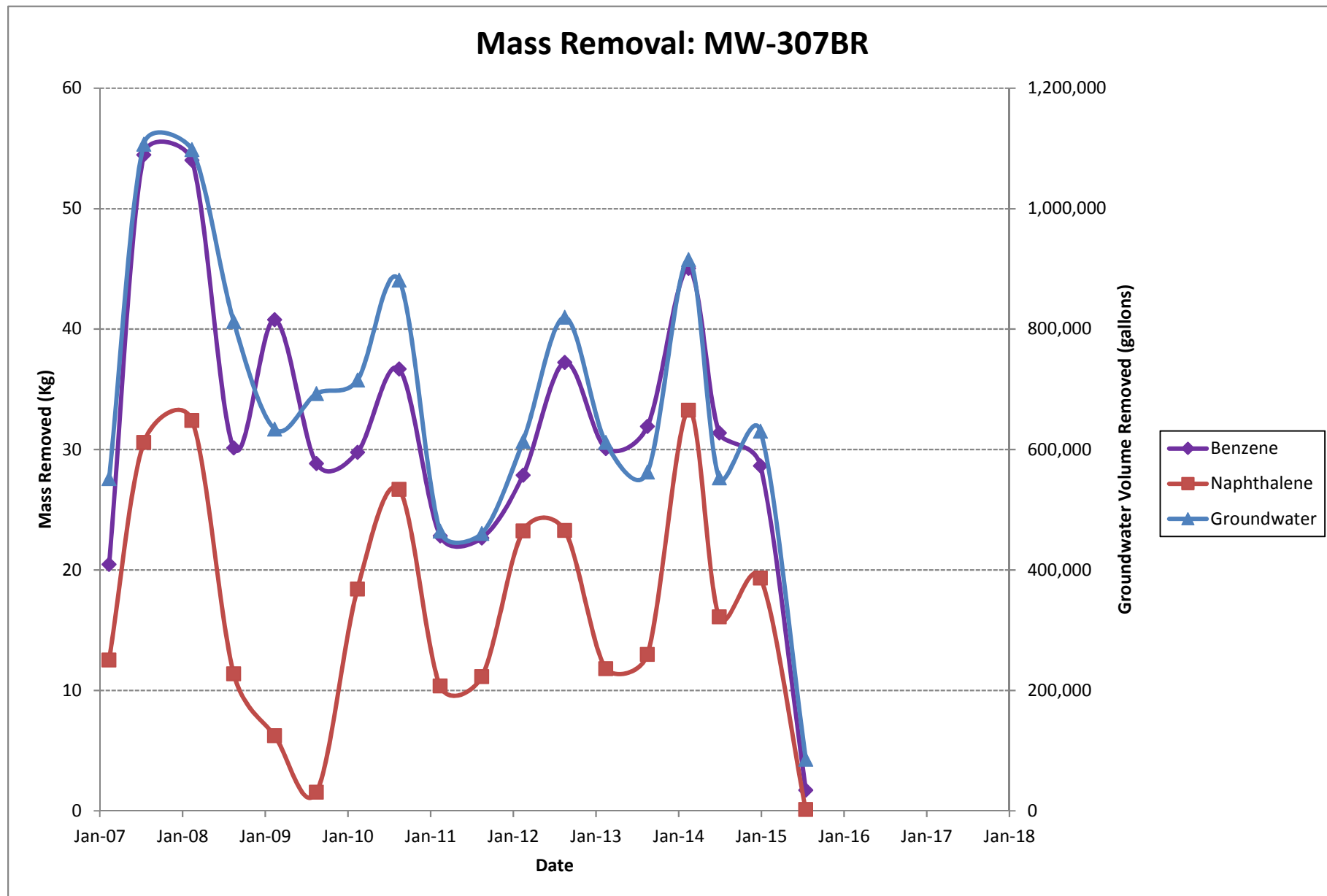
Prepared by/date: MME 3/8/17
Checked by/date: RJB 3/13/17

MW-603

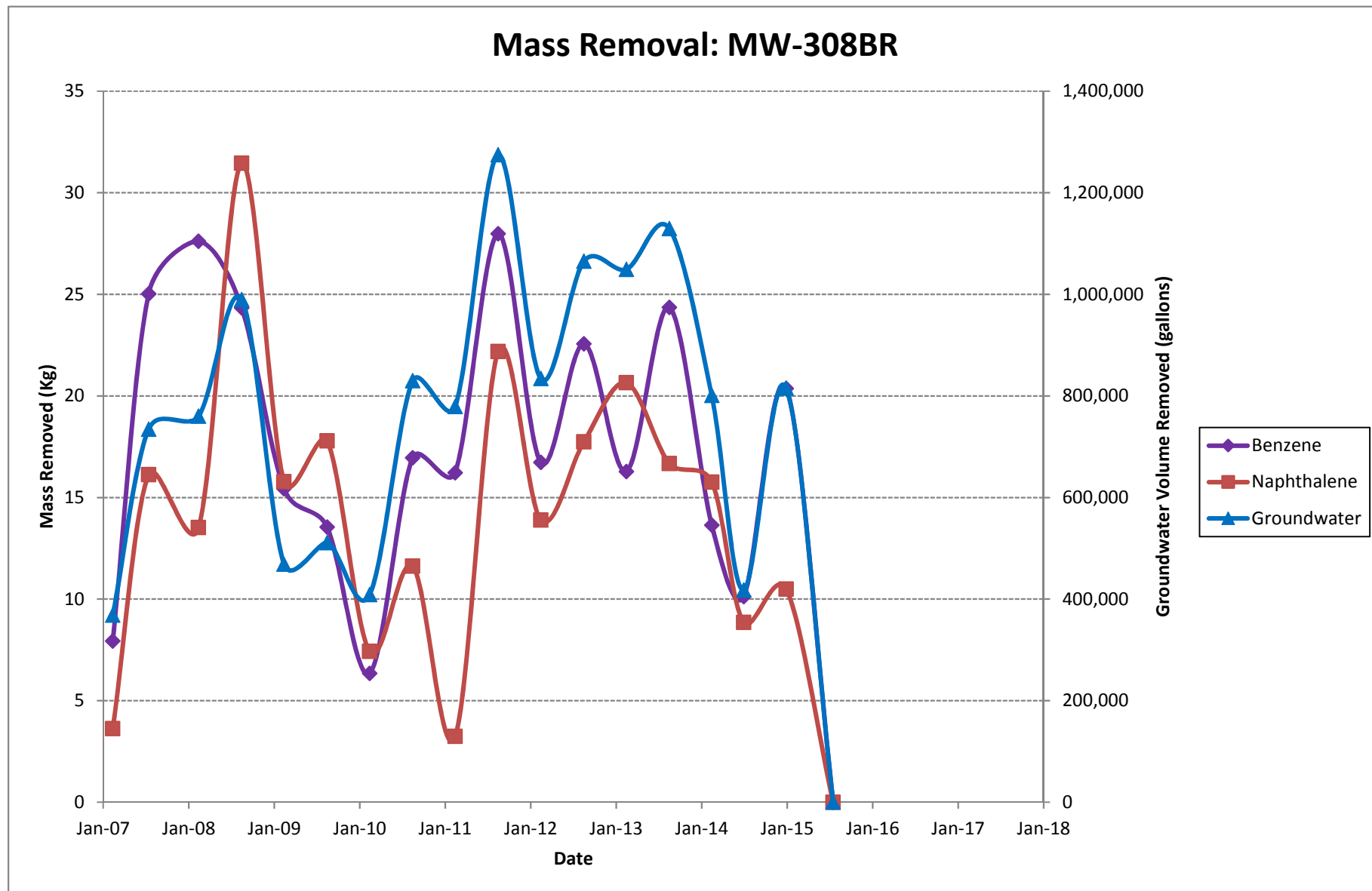


Prepared by/date: MME 3/8/17
 Checked by/date: RJB 3/13/17

APPENDIX G
MASS REMOVAL TREND GRAPHS



Prepared by/date: JMQ 10/29/15
Checked by/date: SAG 11/24/15



Prepared by/date: JMQ 10/29/15
Checked by and date: SAG 11/24/15

APPENDIX H
CONTINUING ACTION MONITORING PLAN INSPECTION



Photograph: 1 | *North Parcel facing north-northwest*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia




Photograph: 2 | *North Parcel + Reach E South of canal facing north-northwest*

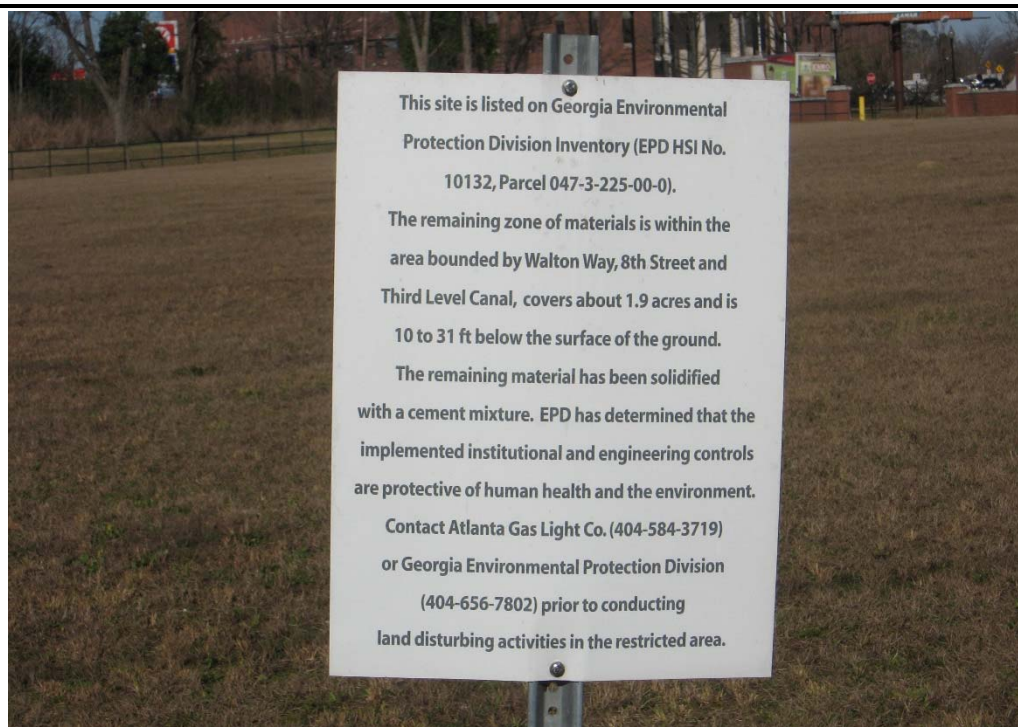
Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 3	8th Street between Taylor St. and Walton Way facing north
Atlanta Gas Light Company January 2017 CAMP Report	 <div data-bbox="1182 898 1399 1012">Former MGP Site Augusta, Georgia</div>



Photograph: 4	Example of permanent signage on Northern Parcel and Carwash Property
Atlanta Gas Light Company January 2017 CAMP Report	 <div data-bbox="1182 1818 1399 1921">Former MGP Site Augusta, Georgia</div>



Photograph: 5 | ROW north of Taylor St. south of Block E facing east

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 6 | ROW south of Taylor St. north of South Parcel facing east

Atlanta Gas Light Company
January 2017 CAMP Report




Former MGP Site
Augusta, Georgia



Photograph: 7	Parcel 362 facing east	
Atlanta Gas Light Company January 2017 CAMP Report		Former MGP Site Augusta, Georgia



Photograph: 8	Parcel 340 and 341 facing west	
Atlanta Gas Light Company January 2017 CAMP Report		Former MGP Site Augusta, Georgia



Photograph: 9 | *King Street south of Taylor Street facing south*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 10 | *Walton Way west of intersection with 8th Street facing west*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 11 | **Carwash Property facing west**

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 12 | **Parcel 764 facing northwest**

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 13 | *Permanent sign for underground electrical vault in intersection of 9th & Fenwick Street*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 14 | *Underground electrical vault in intersection of 9th & Fenwick Street*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 15 | *Fenwick Street facing east toward intersection with 8th Street*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 16 | *8th Street facing south away from intersection with Fenwick Street*

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 17 | **Intersection of 8th and Fenwick Street**

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 18 | **CSX Area facing southeast**

Atlanta Gas Light Company
January 2017 CAMP Report



Former MGP Site
Augusta, Georgia



Photograph: 19		Parcel 98 (Teresa's Warehouse) facing south	
Atlanta Gas Light Company January 2017 CAMP Report		Former MGP Site Augusta, Georgia	




Photograph: 20	Parcel 53.1 (Joe Thompson Parking) facing east		
Atlanta Gas Light Company January 2017 CAMP Report			Former MGP Site Augusta, Georgia

TABLE 1

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 5 Parcels (Northern Parcel) Institutional and Engineering Controls				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 5 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Excavation w/in ISS Limits	X			
Land Disturbing Activities	X			
New Utility Installations	X			
Residential Use Requirements/Barrier	X			
Permanent Markers	X			
Other				
TYPE 5 ENGINEERING CONTROLS				
Soil Cover (Condition, Disturbed, Maintained)	X			
Vegetative Cover (Condition)	X			
Functionally Equivalent Controls In-Place	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 2

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 5 Property (Car Wash Area) Institutional and Engineering Controls				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 5 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Excavation w/in ISS Limits	X			
Land Disturbing Activities	X			
New Utility Installations	X			
Residential Use Requirements/Barrier	X			
Permanent Markers	X			
Other				
TYPE 5 ENGINEERING CONTROLS				
Soil Cover (Condition, Disturbed, Maintained)	X			
Vegetative Cover (Condition)	X			
Functionally Equivalent Controls In-Place	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 3

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 5 Property (Georgia Power Vault) Institutional and Engineering Controls				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 5 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Excavation w/in ISS Limits	X			
Land Disturbing Activities	X			
New Utility Installations	X			
Residential Use Requirements/Barrier	X			
Permanent Markers	X			
Other				
TYPE 5 ENGINEERING CONTROLS				
Soil Cover (Condition, Disturbed, Maintained)	X			
Vegetative Cover (Condition)	X			
Functionally Equivalent Controls In-Place	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 4

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (City of Augusta Street Locations: Fenwick & 8th Streets) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 4-2

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (City of Augusta Street Location: Walton Way) Institutional and Engineering Controls Street Right-of-Way Location				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 4-3

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (City of Augusta Street Location: 8th Street) Institutional and Engineering Controls Street Right-of-Way Location				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 4-4

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Taylor Street) Institutional and Engineering Controls Street Right-of-Way Locations (north and south of Taylor Street)				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 4-5

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (City of Augusta Street Location: King Street) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-1

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Parcel 53.1) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-2

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Parcel 98) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-3

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Parcel 764) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-4

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Parcel 362) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-5

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (Parcel 340 and 341) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

TABLE 5-6

AGLC Augusta MGP Project Semi-Annual Monitoring Form Type 4 Properties (CSX Area) Institutional and Engineering Controls Street Right-of-Way Locations				
MONITORING ITEM	CONDITION ¹			COMMENTS
	NA	MN	IA	
TYPE 4 INSTITUTIONAL CONTROLS				
Groundwater Restriction	X			
Non-Residential Restrictions	X			
Erosion	X			
Other				
Monitoring Performed By: Jeff Moore			Date: 1/27/2017	

Notes:

1 - NA - no action needed, MN- maintenance needed, IA - immediate action needed

APPENDIX I
INVESTIGATION WASTE NON-HAZARDOUS WASTE MANIFEST

Please print or type
(Form designed for use on size (12-pick) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number GACESQG	2. Page 1 of 1	3. Emergency Response Phone 800-255-3924	4. Waste Tracking Number 80855
5. Generator's Name and Mailing Address ATLANTA GAS LIGHT 815 DANTIGNAC ST AUGUSTA, GA 30801		Generator's Site Address (if different than mailing address)			
Generator's Phone: 404-431-2951		U.S. EPA ID Number SCD987598331			
6. Transporter 1 Company Name A&D ENVIRONMENTAL SERVICES (SC), LLC		U.S. EPA ID Number			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address A&D ENVIRONMENTAL SERVICES (GA), LLC 100 WASTE RESEARCH DRIVE MACON, GA 31206		U.S. EPA ID Number GAR000007484			
Facility's Phone: 478-788-8899					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt/Vol.
		No.	Type		
1. NON-REGULATED MATERIAL, LIQUID (WATER) APPROVAL # 16964		6	DR	330	G
2. NON-REGULATED MATERIAL, SOLID (IDW SOIL) APPROVAL # 17067		4	DR	220	G
3.					
4.					
13. Special Handling Instructions and Additional Information					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name RUSSELL K. FRANK		Signature <i>[Signature]</i>		On behalf of Atlanta Gas Light Company	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:			
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Tony Adams		Signature <i>[Signature]</i>		Month Day Year 9/1/16	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator) Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name		Signature		Month Day Year	

APPENDIX B

AGLC RESPONSES TO EPD COMMENTS DATED APRIL 27, 2017

APPENDIX B
AGLC RESPONSES TO EPD COMMENTS DATED APRIL 27, 2017
AUGUSTA MGP SITE, AUGUSTA, RICHMOND COUNTY, GEORGIA

- 1) Per the Vapor Intrusion Risk Evaluation in Appendix E of VRP Report 3, concentrations of benzene, ethylbenzene, toluene, xylenes, naphthalene, and trichloroethene in groundwater on site pose a risk of harmful vapor intrusion into future overlying residential buildings. EPD ran the Johnson & Ettinger vapor intrusion advanced groundwater model using historical groundwater-contaminant data collected on site; the resulting calculations indicate a risk of harmful vapor intrusion into commercial buildings also. Prior to removal of Augusta MGP from the Hazardous Site Inventory, property covenants will need to be in place, or existing covenants modified, to include vapor-intrusion mitigation for newly constructed buildings, both residential and commercial, where applicable.

AGLC Response: *Risks for industrial workers were presented in the vapor intrusion risk assessment and were found to exceed the HSRA target cancer risk of 10^{-5} . Data are shown in Table E-4a and Table E-4b of Appendix E of the 3rd Semiannual Status Report. Therefore, Amec Foster Wheeler recommends vapor mitigation for future construction, both residential and non-residential. The covenants will cover all construction.*

- 2) Regarding the proposed wells to be abandoned, as indicated on Figure 2-4 in VRP Report 4:

- a. EPD questions why MW-502D is scheduled for abandonment. MW-502D lies outside the proposed ISS area within Block A. Because MW-502D has a history of DNAPL, that well could be useful for monitoring the effectiveness of the ISS remedy, and possibly for tracking DNAPL occurrence and migration.
- b. Other than as indicated in Comment 2a above, EPD approves the proposed well abandonments.
- c. To expedite EPD review of future reports, particularly regarding delineation requirements, please continue to include all abandoned wells on historical groundwater analytical-data tables, and continue to depict abandoned well locations on site plats.

AGLC Response: *The remediation footprint on Block A has been revised based on additional investigation (please see the updated drawings included with the June 1, 2017 Semiannual VRP Status Report). Since MW-502D is within the revised remediation area, it will be abandoned to facilitate corrective action in this area. Comments 2b and 2c have been noted.*

- 3) Given the difficulties of implementing remedial activities in the southeast quadrant of the Fenwick Street & 9th Street intersection due to subsurface obstructions, the Type 5 RRS area proposed on Figure 3-1 in VRP Report 4 is acceptable to EPD.

AGLC Response: *Comment has been noted.*

- 4) EPD notes that all existing groundwater-monitoring wells on Block D have been abandoned to accommodate the Fenwick Substation expansion. Given that groundwater quality on that block has been impacted by the former Augusta MGP, please inform EPD as to what additional assessment and remedial actions are planned for that part of the site.

AGLC Response: Consistent with AGLC's response to EPD's March 28, 2016 Comment Number 2, "...AGLC will consult with EPD concerning the locations of new monitoring wells that will be proposed for the site. AGLC will prepare a plan for a revised groundwater monitoring network once ISS remediation activities are completed and present that to EPD prior to implementation". AGLC will also consult with EPD prior to proposing remedial actions that might be planned for the Block D area.

- 5) Groundwater velocities, or seepage velocities (V_s), as presented in Appendix C of CAER 20, were apparently calculated using total porosity (n) of the aquifer media. Effective porosity (n_e) (i.e., the volume of the media consisting of interconnected pore spaces) should be used to calculate V_s . In practice, n_e will almost always be less than n .

AGLC Response: This change has been made.

- 6) Please submit a copy of each court-recorded covenant associated with this site; EPD is in the process of updating its covenant database. If time constraints prevent inclusion of the recorded covenants in the June 2017 VRP semiannual report, please provide them as a single separate submittal by September 1, 2017.

AGLC Response: The covenants associated with this site are attached as Appendix E of the VRP 1st Semiannual Status Report. As we obtain additional covenants, as needed, we will include a copy of them in the corresponding VRP Status Reports.

- 7) EPD has received a submittal dated February 8, 2017, in which 805 King Street and 807 King Street are added to the Augusta MGP Site as additional qualifying properties under the VRP. EPD has also received a submittal dated February 15, 2017, in which 814 8th Street is added to the Augusta MGP Site as an additional qualifying property. Having reviewed both submittals, EPD accepts 805 King Street (tax parcel 047-3-237-00-0), 807 King Street (tax parcel 047-3-236-00-0), and 814 8th Street (tax parcel 047-3-229-00-0) as additional qualifying properties associated with the Augusta MGP Site under the VRP.

AGLC Response: Comment has been noted.

- 8) During the February 27, 2017, meeting between AGL and EPD, AGL stated that it was seeking a certificate of approval to raze the Trinity AME church located on Block E, whereas a local community group had expressed interest in moving the church. In future reports, please keep EPD apprised as to the status of ongoing negotiations regarding the church.

AGLC Response: Comment has been noted, and AGLC will keep EPD apprised as to the material developments in ongoing negotiations regarding demolition or relocation of the church. Negotiations continued through in-person meetings and written documents during the last quarter, and we expect some decisions/determinations within the next three months.

APPENDIX C

REGISTERED PROFESSIONAL SUPPORTING DOCUMENTATION

REGISTERED PROFESSIONAL SUPPORTING DOCUMENTATION

**Gregory J. Wrenn, P.E.
Summary of Hours and Services
Atlanta Gas Light Company – Augusta, GA Former MGP Site
HSI Site No. 10132
Amec Foster Wheeler Project No. 6122-14-0098**

Hours for preparation of 5th Semi-Annual VRP Status Report:

12.5 hours billed between December 1, 2016 and May 31, 2017