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August 28, 2014

Mr. Kevin Collins
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Georgia Department of Natural Resources
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Subject: AGLC-Augusta MGP Site
VIRP Transmittal
Order Number: EPD-VRP-011

Dear Mr. Collins:

Atlanta Gas Light Company (AGLC) is submitting the attached Voluntary Investigation and Remediation Plan and associated Application Form and Checklist for the Former Manufactured Gas Plan (MGP) located in Augusta, GA (HSI #10132) to the Georgia Environmental Protection Division (GAEPD).

Please call me at (404) 584-3719 with any questions concerning this checklist or associated supporting documentation.

Sincerely,
Atlanta Gas Light Company

Greg Corbett, PE
Managing Director – Environmental Services

cc: Mr. David Price, AMEC
Mr. Jim Ussery, Joe Tanner and Associates
Mr. Derrick Williams, GAEPD

Attachment: AGLC Augusta VIRP

VOLUNTARY INVESTIGATION AND REMEDIATION PLAN

Atlanta Gas Light Company

Augusta, Georgia

Prepared for:

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August 28, 2014

Project No. 6122140098

Voluntary Investigation and Remediation Plan

ATLANTA GAS LIGHT COMPANY
Augusta, Georgia

Prepared for:

AGL Resources®

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AGLC	Atlanta Gas Light Company
bgs	Below Ground Surface
BPLM	By-Product-Like Material
CACR	Corrective Action Closure Report
CAMP	Continuing Action Monitoring Plan
COI	Constituents of Interest
CSR	Compliance Status Report
DPT	Direct Push Technology
EC	Engineering Controls
EPA	United States Environmental Protection Agency
EPD	Georgia Environmental Protection Division
FBQSTP	Field Branches Quality System and Technical Procedures
FS	Feasibility Study
ft	Feet
GAC	Granulated Activated Carbon
HSRA	Georgia Hazardous Site Response Act
HASP	Health and Safety Plan
IC	Institutional Controls
IDM	Investigation Derived Materials
ISCO	In-Situ Chemical Oxidation
ISS	In-Situ Solidification
K	Permeability
LNAPL	Light-Non Aqueous Phase Liquids
MGP	Manufactured Gas Plant
NTU	Nephelometric Turbidity Unit
OLM	Oil-Like Material
OU	Operable Unit
PA	Preliminary Assessment
POE	Point of Exposure
PID	Photoionization Detector

Acronym	Definition
PPE	Personal Protection Equipment
PVC	Polyvinyl Chloride
RAO	Remedial Action Objectives
RCAP	Revised Corrective Action Plan
ROW	Right of Way
RRS	Risk Reduction Standards
SCM	Site Conceptual Model
SESD	Science and Ecosystem Support Division
SF	Square Feet
SI	Site Inspection
TCE	Trichloroethylene
TLM	Tar-Like Material
USGS	United States Geological Survey
VI	Vapor Intrusion
VIRP	Voluntary Investigation and Remediation Plan
VOC	Volatile Organic Compound
VRP	Georgia Voluntary Remediation Program
VRPA	Georgia Voluntary Remediation Program Act

1.0 INTRODUCTION

1.1 OVERVIEW

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 formerly 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" (Figure 1-2) in this Voluntary Investigation and Remediation Plan (VIRP). It is AGLC's intent to qualify the complete Site, including owned and unowned parcels impacted by the former MGP operations above applicable cleanup standards, in the Voluntary Remediation Program (VRP).

To date, AGLC has performed a series of investigations and implemented numerous Georgia Environmental Protection Division (EPD)-approved corrective actions at the Site. AGLC has addressed the MGP impacts in the unsaturated and saturated materials over large areas of the Site and areas surrounding since the mid-1980s, including the areas that are the focus of the planned corrective action described in this VIRP. Human and ecological receptors are not exposed to MGP impacts in groundwater or saturated materials at the Site because there are no known wells in use within the groundwater impacted footprint underlying the Site, other than those used for investigative and remediation activities at the Site. An updated well survey is planned as part of this VIRP. Further, specific parcels have institutional controls (ICs) in place to prevent future exposure including: restricting groundwater use and installation of groundwater wells, and limiting/restricting excavation of soils at affected Parcels. These controls will continue to be used to verify that there are no complete exposure pathways to human and ecological receptors.

To address the remaining MGP impacts, mostly in the saturated zone, AGLC has worked cooperatively with the EPD to formulate an approach for the project that is holistic, rather than discrete solutions for each media. This approach was presented in a March 6, 2009, letter to EPD. EPD concurred with the general approach in a March 18, 2009, meeting. The approach included three preliminary components: the preparation of a Site Conceptual Model (SCM), development of a groundwater flow and transport model, and submittal of a Feasibility Study

(FS). The SCM submitted on December 28, 2009 was approved by EPD in a letter dated March 19, 2010. The SCM recommended additional investigations to address remaining data gaps, which were implemented in late 2010 and reported to EPD in 2011. An SCM Addendum was developed to incorporate the results of data-gap investigation activities. The SCM Addendum was submitted to EPD on February 17, 2012, incorporating EPD comments and addressing identified data gaps and results of the vapor intrusion evaluation and well installations. The groundwater model was initially submitted to the EPD on June 6, 2012**,** with a follow-up document submitted on August 13, 2012, in response to EPD comments on the model report. The FS was submitted to EPD on December 13, 2012 to evaluate appropriate technologies to address source materials in the saturated zone.

AGLC received comments from EPD on the FS initially in a letter dated October 9, 2013 requesting AGLC submit a revised corrective action plan (RCAP) with a more aggressive remedy to address remaining source impacts in the saturated zone. Considering the scope of EPD's comments, AGLC in a letter dated November 27, 2013 requested a time extension for submittal of the RCAP on 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. The remediation of the Augusta MGP Site under the VRP will more effectively achieve both EPD's and AGLC's goals, including:

- Protection of human health and the environment,
- Expedited implementation of corrective action without delay of the existing schedule,
- Certainty in the implementation of the work to address source materials in the saturated zone,
- More timely de-listing of parcels from the Hazardous Site Inventory,
- Enhanced potential for reuse and redevelopment of the Augusta Site which will benefit the Augusta community, and
- More cost efficient overall process that reduces coordination costs.

AGLC received a letter from EPD concurring with moving 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 by August 28, 2014 in lieu of a RCAP submittal deadline of August 29, 2014. 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. At the time of this submittal, proposed Consent Order EPD-VRP-011 is currently under public notice with the comment period closing on September 10, 2014. Additionally, to demonstrate AGLC's commitment to enrolling the Augusta MGP Site in the VRP, AGLC submitted an initial VIRP Application Form and Checklist with associated VRP application fee on August 6, 2014.

The overall goal of this VIRP is to describe the currently planned actions to support bringing the Site into compliance with applicable VRP cleanup standards as required under the Georgia Voluntary Remediation Program Act (VRPA) and detailed in the proposed Consent Order for the Site which includes addressing EPD's December 6, 2013 comment letter consistent with the framework and governing provisions of the VRPA. Remedial Action Objectives (RAOs) have been developed to define the goals of this VIRP to address constituents of interest (COIs). A list of COIs for the Site is presented in Table 1-1. The following RAOs were developed:

- Immobilize and/or remove remaining source material (by-product-like material (BPLM) impacted areas) in the Galliard zone to the extent practicable to reduce the release of COIs to groundwater.
- Reduce extent of dissolved phase COIs in groundwater above applicable VRP cleanup standards.
- Meet applicable drinking water criteria for Site COIs in groundwater at the point of exposure (POE).

The actions planned to meet these objectives consist of the following and will be discussed in other sections of this plan:

- Additional investigation by collecting soil boring cores for visual observation to characterize extent of BPLM impacts in the saturated zone above the saprolite in Subareas 2 and 3 (defined in Section 2.2.2),
- Additional investigation to better understand potential trichloroethylene (TCE) impacts from an offsite source by installing and sampling three groundwater monitoring wells in the vicinity of MW-401D,

- Address remaining source material in the saturated zone above the saprolite, to the extent practicable, by performing in-situ stabilization (ISS) in Subareas 1, 2, 3 (defined in Section 2.2.2) to support the overall groundwater remedy
- Continued implementation of semi-annual groundwater monitoring after ISS implementation to verify effectiveness and sustainability of the ISS remedy for three years,
- After completion of the ISS, develop groundwater cleanup criteria/goals and control strategies for the Site to achieve compliance with appropriate VRP cleanup standards, and
- In accordance with VRPA, upon determination of remedy effectiveness, prepare and submit a Compliance Status Report for the Site in its entirety.

Details regarding these planned actions are described in the following sections.

1.2 QUALIFYING PROPERTY AND APPLICANT

The qualifying properties included in the VIRP application include parcels 106, 109, 185, 186, 187, 188, 189, 225, 227, 228, 230, 231, 248, 327.2, 327.1, 328, 329, 330, and 374.1 owned by AGL. A survey drawing depicting the qualifying property boundaries is provided in Appendix A. Qualifying property details are included in an updated VIRP Application Form and Checklist in Appendix A. The warranty deeds for qualifying properties are included in Appendix B. These properties are listed on the Georgia Hazardous Site Inventory List or have a release of regulated substances into the environment. None of these properties are listed on the federal NPL; or are undergoing response activities required by an EPA 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 and is not in violation of any order, judgment, statute, rule or regulation subject to enforcement by the EPD director. AGLC is the qualified applicant and as additional affected properties are to be added to this VRP Application, AGLC will notify EPD and revise the VIRP accordingly.

2.0 CURRENT ENVIRONMENTAL INFORMATION

The former Augusta MGP includes three parcels of land owned by AGLC on which an MGP and ancillary facilities formerly operated and surrounding parcels in Blocks A and E affected by these historical MGP operations. The three parcels that contained the MGP and ancillary facilities are designated the Northern and Southern Parcels, which are located on the east bank of the Third Level Canal, and the smaller Western Parcel located on the west bank of the canal (Figure 1-2). AGLC has also acquired other parcels affected by these operations. Properties owned by AGLC included in this VRP application are shown in Figure 2-1.

2.1 SITE HISTORY

MGP production operations used coal, coal tar, and coal slurry in thermal processes to manufacture and store gas products such as hydrogen, methane and carbon monoxide at the former Augusta MGP**.** MGP production also generated BPLM, an oily substance that leaves an oil-like material (OLM) and tar-like material (TLM) residue. BPLM has subsequently impacted soil and groundwater of the Site, which includes the parcels that comprised the former MGP Site and some surrounding parcels.

Detailed descriptions of the operational history of the Augusta MGP are provided in the Preliminary Assessment (PA) Report (LAW 1991a) and the Site Inspection (SI) Report (LAW 1992b). The three parcels that primarily comprised the former MGP are described in the following sections.

2.1.1 NORTHERN PARCEL

Primary gas production and gas storage took place in the Northern Parcel, which is bounded by Walton Way, 8th Street, and the Third Level Canal. Buildings and facilities identified on Sanborn Maps of the area for the period of 1904 through 1954 (PA Report) included four gas holders (i.e. Holder #1 300,000 cubic feet, Holder #2 125,000 cubic feet, Holder #3 60,000 cubic feet and Holder #4 60,000 cubic feet), oil tanks, gas purifiers, a tar separator, a tar well, a retort house, and a main building. Sanborn Maps indicate retorts were once located in the main building, which was later converted to a service shop. A warehouse addition was subsequently attached to this structure (RETEC 2003). All above-ground and below-ground MGP structures have been

demolished on the Northern Parcel, and the property is currently vacant and grassed. Activities in this area were addressed in an EPD-approved Corrective Action Closure Report (CACR) and Compliance Status Report (CSR) dated August 9, 2005 and are summarized in Section 2.3. The locations of these former structures are presented on Figure 2-2.

2.1.2 SOUTHERN PARCEL

The Southern Parcel is bounded by 8th Street, Taylor Street, King Street, and the Third Level Canal. Gas Holder No. 5, with a capacity of up to 1.3 million cubic feet, and the foundation of a former building were located on the Southern Parcel. The property is currently vacant and grassed. Remediation of this area was previously reported by RETEC (1998) in the EPD-approved Soil Removal Completion Report for the Western, Southern and Southeastern Bituminous Parcels and is summarized in Section 2.3. The locations of former structures are presented on Figure 2-2.

2.1.3 WESTERN PARCEL

The Western Parcel located in Block C is bounded to the north by the Third Level Canal, to the west and east by former residential property, and to the south by D'Antignac Street. The Western Parcel was used for general storage including above ground storage tanks during former MGP operations. Debris from a small concrete foundation remains on the Western Parcel; otherwise, the parcel is vacant and former structures on this parcel have been demolished. Remediation of this area was previously reported by RETEC (1998) in the EPD-approved Soil Removal Completion Report for the Western, Southern and Southeastern Bituminous Parcels and is summarized in Section 2.3. Again, the locations of former structures are presented on Figure 2-2.

2.2 SUMMARY OF OPERABLE UNITS

The Augusta Site Soil and Groundwater CAP (ThermoRetec 2001) (RETEC, f/k/a ThermoRetec Consulting Corporation) was approved by EPD on March 30, 2001. This documented that the Augusta MGP Site is divided into separate Operable Units (OUs): OU-1, OU-2 and OU-3. A

summary of each of the OUs is provided below. The additional corrective action focus of this VIRP is for OU-2.

2.2.1 OU-1

OU-1 is the soil above the water table outside the Third Level Canal. The CACR and CSR for OU-1 and OU-2 were submitted to EPD on January 16, 2009 (MACTEC 2009a) in compliance with applicable RRS for soils. On March 30, 2009, EPD approved the CACR and CSR, subject to continued implementation of the Continuing Action Monitoring Plan (CAMP) (MACTEC 2009d).

2.2.2 OU-2

OU-2 is the BPLM present below the water table outside the Canal but within the saturated zone where BPLM has been observed and its extent modeled as part of the SCM. The CACR and CSR approval for soils described in the previous section also included OU-2, but additional remedies need be evaluated as part of the site-wide approach due to the presence of residual and saturated BPLM in the saturated zone possibly contributing to ongoing groundwater impacts. Additional details regarding the nature and extent of impacts are provided in Section 3.

Portions of OU-2 that are initially being addressed in this VIRP have been divided into three subareas. Each of these subareas is described in further detail below and depicted on Figure 2-3.

2.2.2.1 SUBAREA 1 (BLOCK C)

The portion of Block C that is affected by COIs is bounded to the north by the Third Level Canal, residential property to the east, to the west by the former Western Parcel, and to the south by D'Antignac Street.

2.2.2.2 SUBAREA 2 (BLOCK E)

Block E is bounded by Walton Way to the north, King Street to the East, Taylor Street to the south and 8th Street to the west. A vacant brick structure, formerly the Trinity CME Church, owned by AGLC is located mid-block on 8th Street between Walton Way and Taylor Street. A vacant house is present north of the brick structure. Other structures present in this subarea include a cinder block building, small building housing the bedrock groundwater treatment system and a 19th century former prayer house.

2.2.2.3 SUBAREA 3 (STREET AREAS)

The Street areas included in Subarea 3 are a portion of 8th Street between Taylor Street and Walton Way and Walton Way between the Third Level Canal and 8th Street. In addition, the southern portion of Block A east of the former Car Wash, abutting the Walton Way right of way (ROW), is included in this subarea.

2.2.3 OU-3

OU-3 is the soil above the water table, BPLM below the water table, and sediment above and below the water table within the Third Level Canal. The CACR and CSR for OU-3 were submitted to the EPD on January 16, 2009 (MACTEC 2009b). On March 30, 2009, EPD approved the CACR and CSR, subject to the continued implementation of the CAMP.

Figure 2-4 presents the current regulatory status of HSRA RRS Certified Areas (soils and sediments only) for parcels associated with this Site for OU-1, OU-2 and OU-3. Upon completion of the planned corrective action described in this VIRP, the Site parcels will be re-evaluated and compared to VRP certification criteria and documented in the VRP CSR.

2.3 PREVIOUS INVESTIGATIONS AND CORRECTIVE ACTIONS SUMMARY

A series of investigations and EPD-approved corrective actions have been completed to address source areas and COIs associated with former MGP operations. A full chronological list of prior investigation and remedial actions is presented in the 2009 Revised SCM with investigations beginning in 1985, and continuing to date. Previous remedial activities including

excavation, in-situ solidification (ISS) and in-situ chemical oxidation (ISCO) events are depicted on Figure 2-2. Investigations since 2008 have evaluated bedrock conditions and refined the delineation of BPLM. These investigations were completed to support SCM development, groundwater model development, and the FS. They also served to evaluate the potential for vapor intrusion in buildings located above affected groundwater. A chronology of the major remedial actions to-date is provided below:

1997	Removal of the 1.5-million gallon gas holder located on the Southern Parcel including treatment and disposal of over 3 million gallons of water, removal and reclamation of almost 95,000 gallons of tar, and removal of the holder structure.
1998	Excavation of saturated- and unsaturated-zone soils on the Southern and Western Parcels and portions of the Southeastern Bituminous Company property, including removal of approximately 24,000 tons of material and 1,800 tons of non-hazardous waste.
2001	ISS pilot study conducted prior to full-scale ISS.
2003	Excavation and ISS activities completed for the Northern Parcel and former Car Wash areas.
Nov. 2003 – June 2004	ISCO pilot study conducted prior to full-scale ISCO.
2003 – 2005	Excavation of over 41,500 tons of unsaturated-zone soil at four areas (Blocks A, E, G and H) and on portions of city streets and ROW.
2004	Remediation of the Third Level Canal completed, including excavation of BPLM impacted soil along five segments of the canal and installation of a concrete liner in the areas of the canal between 7th and 12th Streets.
2005	ISCO implemented in Block E, along the 8th Street ROW, within the gas station parcel, and along Walton Way ROW.
2006	Installation of bedrock groundwater extraction system consisting of two bedrock extraction wells (MW-307BR and MW-308BR) and two, 2000-pound granular activated carbon (GAC) treatment vessels. System operation began November 2006.

2008	Bedrock groundwater investigation conducted to further characterize bedrock fractures and transmissivity.
2010	Field data gap investigation conducted in October to collect data around the perimeter of the BPLM footprint, refine the SCM source model, and to refine the groundwater model.
	Additional monitoring wells installed during October in the Galliard Formation and Bedrock Unit.
	Several monitoring wells decommissioned in October in accordance with the approved December 2009 SCM.
	Field investigation consisting of soil vapor sampling performed in October to evaluate the potential for vapor intrusion into buildings located within areas of groundwater impacts.
2012	Indoor air quality sampling conducted inside the buildings referenced above to further evaluate the vapor intrusion pathway. First round of sampling was conducted in May 2012, and the second round conducted in November 2012.

3.0 SITE CONCEPTUAL MODEL

A SCM was developed using data obtained during previous investigative activities at the Site, from previous reports, and from reviews of published literature. As discussed in Section 2.0, unsaturated zone soils have been addressed and meet applicable RRS, thus the focus of the SCM was the saturated zones. The SCM illustrated the Site's surface and subsurface setting, the known or suspected source(s) of impacts, how impacted media might move within the environment, the potential human health and ecological receptors, and the complete and incomplete exposure pathways that exist for the Site. The SCM was finalized December 28, 2009, and approved by EPD on March 30, 2010. It is summarized in the following sections and is provided electronically in Appendix C. The 2009 Revised SCM included recommendations to address data gaps, install additional Galliard and bedrock wells, and evaluate vapor intrusion. These activities were conducted in 2010, and reports documenting these efforts were submitted to EPD in 2011 and early 2012. They are summarized in Section 2.3.

A SCM Addendum was prepared by updating the SCM with the results of the various investigations performed per SCM recommendations and updating the lithologic and BPLM models to support the groundwater model, FS, and remediation plan development. The SCM Addendum was submitted to EPD on February 17, 2012 and is provided electronically in Appendix C. A groundwater flow and transport model utilizing data collected for the SCM and SCM Addendum was submitted to the EPD on June 6, 2012 (ECM 2012), with a follow-up response to comments document submitted on August 13, 2012. A vapor intrusion (VI) evaluation, also performed in accordance with the SCM, yielded potential exceedances of target risk levels for carcinogens. Indoor air sampling was thus conducted at all five buildings located on the former Augusta MGP Site as the next step in the VI evaluation process. The first round of indoor air quality sampling was conducted in May 2012 and the second in November 2012. Collective data analysis (including ambient air samples, forensic samples, SCM data, etc.) indicates that the observed indoor air quality impacts are not derived from the AGLC MGP sources. Elements of the SCM are summarized in the sections below.

3.1 GEOLOGY AND HYDROGEOLOGY

Four main stratigraphic formations characterize the Site, as shown in Figure 3-1. Similarities in geology and hydrogeology have allowed them to be evaluated as two principal intervals:

Galliard and Bedrock. The hydrogeology of the Galliard Formation is characterized by the Alluvial and Galliard zones. The Galliard Formation is generally present at the site 20 to 30 feet (ft) below ground surface (bgs). The hydrogeology of the Bedrock Formation is characterized by the Saprolite and Bedrock zones. The top of Saprolite in the Bedrock Formation is generally encountered at the site 27 to 30 ft bgs. Groundwater impacts in OU-2 are identified in accordance with their presence in the Galliard and Bedrock Zones, and the SCM focused on these. Geologic and hydrogeologic properties of each of the main zones are described in the following sections.

3.1.1 GEOLOGY

3.1.1.1 GALLIARD FORMATION

The Galliard formation consists of poorly graded predominantly medium grain sands that are typically less than 5 ft thick and present above the Saprolite at depths ranging from approximately 20 to 30 feet below ground surface (bgs). Galliard formation sands are described both as fine to medium grained and as medium to coarse grained. The Galliard formation at the Site is relatively thin compared to a thickening sequence to the south-southeast.

3.1.1.2 BEDROCK FORMATION

The Bedrock Formation is composed of Weathered Bedrock (Saprolite) and Bedrock. Saprolite underlies the Galliard Formation and is generally a clay-rich material derived from in-situ chemical weathering of the underlying bedrock (Heath 1984). Saprolite retains the original rock structure, foliation, parting planes, shear zones, quartz veins, and jointing (fractures), but its hardness and density are less than the parent rock (Obermeier and Langer, 1986). The Saprolite in the vicinity of the Site generally consists of foliated, micaceous silt and medium- to coarse-grain, white to yellow sands. Iron-oxide stained parting planes, which parallel the foliation, occur where the Saprolite is thinly bedded. Saprolite gradually becomes denser, less fractured, and less permeable with depth. At the Site, Saprolite is encountered beginning at about 27 to 30 ft bgs and is approximately 35 ft thick with some localized thickness up to 65 ft thick (MW-507BR).

The bedrock at the Site is predominantly an amphibolite, epidote–rich in most sections, with lesser amounts of metagraywacke and phyllite. Quartz veins are also present in the bedrock. The bedrock is highly fractured throughout the length of the cores taken during characterization.

3.1.2 HYDROGEOLOGY

3.1.2.1 ALLUVIAL ZONE

A shallow unconfined aquifer is present in the fill and Alluvial sands to the east of the Third Level Canal. An extensive clay unit within the alluvial deposits separates this shallow unconfined aquifer from the deeper semi-confined aquifer. Prior to ISS, groundwater flow in the Alluvium was generally to the east (see 2009 Revised SCM). The ISS masses on the Northern Parcel and former Car Wash Area have created a barrier to groundwater flow due to the ISS hydraulic conductivity being orders of magnitude lower than the surrounding Alluvium. The most recent groundwater elevations for the Alluvium (January 2014) are shown on Figure 3-1 in Appendix D, completed as part of the 15th Semi-Annual Corrective Action Effectiveness Report using January 2014 groundwater monitoring data. This figure and other historical potentiometric surface and cross section maps are included in Appendix D of this report. Current groundwater flow appears to be controlled by local groundwater recharge at the Site.

3.1.2.2 GALLIARD ZONE

The deeper semi-confined aquifer consists of the Galliard sand. A more detailed description of the hydrogeology of the Galliard is provided in the 2009 Revised SCM. Review of the groundwater contours available to date suggests that the historic general groundwater flow direction was from the west to the east. ISS implementation in 2004, however, altered the local groundwater gradient by causing groundwater to flow around it. The post-ISS local flow pattern in the Galliard Formation inferred from January 2014 data indicates a southeasterly flow, with a steeper groundwater gradient flowing to the southeast east of the Southern Parcel, with flow around the Northern Parcel to the south in an easterly direction as shown in Figure 3-2a in Appendix D. Previous groundwater sampling events showed this as a zone of stagnation with more pronounced mounding southwest of the Northern Parcel. Groundwater flow is complex in the immediate vicinity of the ISS masses, leading to some variability in localized groundwater

flow patterns. Groundwater flow in the Galliard is being influenced by the extreme low hydraulic conductivity of the ISS mass in the Northern Parcel and former Car Wash area as well as by the bedrock groundwater treatment system. Figure 3-2 in Appendix D shows Galliard groundwater flow during the January 2013 sampling event, which was conducted after the bedrock groundwater treatment system had been shut down for approximately 6 months.

3.1.2.3 SAPROLITE ZONE

The Saprolite is a semi-confining unit between the Galliard sand overlying the Saprolite and the underlying bedrock (RETEC 2002). The top of bedrock is located at an average depth of 50 ft bgs (Figure 3-1). A more detailed description of the hydrogeology of the Saprolite aquifer is provided in the 2009 Revised SCM. The most recent potentiometric surface for the Saprolite (January 2014) is shown on Figure 3-3 in Appendix D. The January 2014 groundwater elevation data for the Saprolite unit indicates groundwater flow trends to the east-southeast toward bedrock pumping well MW-307BR. The groundwater extraction and treatment system has been continuously operational during this period with the exception of an approximate 6 month time frame in late 2012 to early 2013 when the system was non-operational due to maintenance activities. Data from 2008-2014 groundwater monitoring reports suggest that the bedrock extraction system influences groundwater flow within the Saprolite. Any groundwater flow in Saprolite (or Bedrock) interpreted near or adjacent to the ISS mass is assumed to flow under the mass.

3.1.2.4 BEDROCK ZONE

The Bedrock is predominantly an epidote-rich amphibolite with lesser amounts of metagraywacke and phyllite. Numerous thin fractures and foliation planes along with occasional large fractures transmit most groundwater through the Bedrock. The matrix itself has very low porosity. The fractures are interconnected, as was evident by significant drawdown in all of the nearby bedrock observation wells regardless of depth or orientation to the pumping well(s). The axis of maximum transmissivity is oriented north-northeast to south-southwest, which is sub-parallel to both the primary fracture orientation and the primary axis of the dissolved-phase benzene plume (AECOM 2009).

As discussed in Section 2.3, a bedrock groundwater extraction system consisting of two recovery wells (MW-307BR and MW-308BR) and two 2000-pound GAC treatment vessels was installed and began operation in November 2006. A more detailed description of the hydrogeology of the bedrock aquifer is provided in the 2009 Revised SCM. The most recent potentiometric surface for the bedrock (January 2014) is shown on Figure 3-4a in Appendix D. Based on January 2014 data, groundwater flow in bedrock appears to be toward MW-307BR and MW-308BR (Figure 3-4a). The groundwater recovery well at MW-307BR is apparently capturing groundwater in the bedrock from up to 900 feet away to the northeast as is evidenced by the groundwater trough at MW-325. Figure 3-4 in Appendix D shows Bedrock groundwater flow during the January 2013 sampling event, which was conducted after the bedrock groundwater treatment system had been turned off for approximately 6 months due to maintenance activities.

3.2 NATURE AND EXTENT OF BPLM IMPACTS BY SUBAREA

As discussed in Section 2.2.2, residual and saturated BPLM impacts in OU-2 remain, and these impacts are distributed among the three subareas defined in Section 2 and described below.

3.2.1 SUBAREA 1 (BLOCK C, D'ANTIGNAC STREET)

The 2009 SCM and 2012 SCM Addendum presented a 3-dimensional BPLM source model generated from analytical data and visual observations of residual and saturated BPLM in borings and wells. Cross sections from the SCM Addendum are provided in Appendix D of this VIRP (Figures 3-10 through 3-16 of the SCM Addendum). The BPLM source model delineates the lateral extent of residual and saturated BPLM within Subarea 1 to be approximately 11,240 square feet (sf) (Figure 3-2). Note that while Figure 3-2 shows the area as continuous, actual impacts in 3-dimensions would be sporadic and discontinuous consistent with the cross sections depicted in Figures 3-11 through 3-16 in Appendix D. The BPLM is generally present below the water table, in the Galliard Zone and top of Saprolite at depths ranging between 18 ft bgs and 36 ft bgs.

3.2.2 SUBAREA 2 (BLOCK E)

The BPLM source model delineates the lateral extent of residual and saturated BPLM within Subarea 2 to be approximately 45,800 sf (Figure 3-2). While Figure 3-2 shows the impacted area as continuous, actual impacts in 3-dimensions would be sporadic and discontinuous, as shown in the cross sections from the SCM Addendum provided here in Appendix D. Limited additional investigation is planned for Block E to refine the BPLM footprint for remediation and is described in Section 4.2.1. The BPLM is generally present below the water table in the Galliard Zone and top of Saprolite at depths ranging between 10 ft bgs and 27 ft bgs.

3.2.3 SUBAREA 3 (STREET AREAS)

The BPLM source model delineates the lateral extent of residual and saturated BPLM within Subarea 3 to be approximately 55,100 sf, (Figure 3-2). As depicted in the cross sections from the SCM Addendum provided in Appendix D, actual impacts in 3-dimensions are sporadic and discontinuous. Limited additional investigation is planned for Subarea 3 to refine the BPLM footprint for remediation as described in Section 4.2.1. The BPLM is in general present in the Galliard Zone and the top of the Saprolite at depths ranging from 4 ft bgs and 27 ft bgs.

3.3 DISTRIBUTION OF CONSTITUENTS OF INTEREST IN GROUNDWATER

The footprint for distribution of COIs in the Galliard and Bedrock zones are based on groundwater sample results collected in January 2012, July 2012, January 2013, July 2013, and January 2014. Generally, locations with COI concentrations exceeding the HSRA Type I RRS values shown in Table 1-1 were included in the footprint with exceptions noted on Figures 3-3 and 3-4 for delineation purposes. Tables 3-1 and 3-2 show groundwater analytical results from January 2012, July 2012, January 2013, July 2013, and January 2014 sampling events in the Galliard and Bedrock zones, respectively. These tables also include Type I RRS for delineation comparison purposes only. These samples were originally collected as part of the CAMP for long term monitoring for the Site and reported to EPD in Semi-Annual Corrective Action Effectiveness Reports for the Site.

3.3.1 GALLIARD ZONE

Contaminants in the Galliard zone reach a northernmost point at MW-603 and a southernmost point between MW-12 and MW-206. The impacted area is mostly bounded by the canal to the west, except in the southeast corner of Block C (Subarea 1), in agreement with the potentiometric characteristics of the Site. To the east, the footprint is bounded by MW-22. The footprint encompasses the impacts present in Subareas 2 and 3. The impacted area sits in an area with little to no potentiometric gradient without much potential for movement. Figure 3-3 shows the estimated extent of dissolved phase COIs above Type 1 HSRA RRS in the Galliard Zone. As shown in Figure 3-3, the Galliard impacted extent is delineated for the Site except upgradient of MW-401D and north of MW-603. Galliard groundwater analytical results for samples collected from January 2012 to January 2014 are shown in Table 3-1. Additional investigation is planned to be completed in the vicinity of MW-401D to better understand the trichloroethylene (TCE) impacts detected in this area as part of this VIRP and is described in more detail in Section 4.2.2. Since the area north of MW-603 correlates to a Type 5 area that will be addressed if future construction is performed within the Fenwick Street right of way, additional investigation in the vicinity of MW-603 is not planned at this time.

3.3.2 BEDROCK ZONE

Contaminants in the Bedrock zone are delineated in all directions and reach a northernmost and easternmost point at MW-318 and a southernmost point between MW-500BR and MW507BR. The impacted area includes Block C (Subarea 1) to the west, and winds north and to the east over the groundwater trough present in Blocks D and E. The footprint encompasses the impacts present in Subareas 2 and 3. The impacted area sits in an area with little to no potentiometric gradient without much potential for movement. Figure 3-4 shows the extent of dissolved phase COI impacts above HSRA Type 1 RRS in the Bedrock Zone and groundwater analytical results in Bedrock for samples collected from January 2012 to January 2014 are shown in Table 3-2.

3.4 POTENTIAL RECEPTORS AND EXPOSURE PATHWAYS

3.4.1 ENVIRONMENTAL RECEPTORS

Human and ecological receptors are not exposed to MGP impacts in groundwater or saturated materials at the Site because there are no known wells in use within the groundwater impacted footprint underlying the Site, other than those used for investigative and remediation activities at the Site. Further, specific parcels have institutional controls (ICs) in place to prevent future exposure including: restricting groundwater use and installation of groundwater wells, and limiting/restricting excavation of soils at affected Parcels. The former Augusta MGP Site is generally surrounded by mixed use residential and commercial property (Figure 3-2). Tracts of undeveloped land are also present adjacent to the Site and are potentially subject to further development in the future and appropriate ICs and ECs will continue to be kept in place to be protective of applicable future receptors. During implementation of the planned remediation activities in OU-2, human health exposures would be limited to construction workers, and appropriate controls will be put in place to be protective of construction workers for implementation of the remedy as described in Section 4.

3.4.2 EXPOSURE PATHWAY ANALYSIS

The exposure pathway analysis is described in this section and presented using information from previous reports. The three exposure pathways considered were:

- Surface Soil and Sediments Ingestion and Contact,
- Groundwater Ingestion and Contact, and
- Vapor Inhalation.

3.4.2.1 SURFACE SOIL AND SEDIMENTS INGESTION AND CONTACT

AGLC has remediated exposure pathways associated with soil and sediments as described in Section 2.3, eliminating this exposure pathway.

3.4.2.2 GROUNDWATER INGESTION AND CONTACT

COI-impacted groundwater is not accessible for direct contact, and the impacted aquifers underlying the Site do not serve as sources of water supply. Potable water is supplied to the Site and surrounding area by the Augusta-Richmond County municipal system as the area lies within the Urban Services District. The Urban Services District is defined as any property contained within the boundaries of the former City of Augusta before its consolidation with Richmond County, as of December 31, 1995 (Augusta-Richmond County Code, Section 1-1-2(oo) Title 1). According to the most recent well survey for the Site (MACTEC, 2009c), the municipal water supply system obtains its water from both surface and groundwater sources. All surface water intake stations and municipal drinking water wells are located outside the three-mile radius of the Site.

The most recent well survey (MACTEC, 2009c) was conducted in conjunction with the completion of the SCM (Appendix C). According to the 2009 Survey, no known surface water intakes or active wells, other than those used for investigative and remediation activities at the Site, are in use within the groundwater impacted footprint underlying the Site. AGLC plans to complete an updated well survey as part of this VIRP to verify the number of wells and well uses within the Site vicinity. The Site and adjacent properties are supplied with municipal water, rendering the groundwater exposure pathway incomplete at the Site and adjacent surrounding areas. Further, the Augusta-Richmond County Code (Section 3-7-43 Title 3) makes it unlawful to dig, operate, or maintain any well for producing water within the Urban Services Area where the Augusta MGP Site and surrounding area are situated. A copy of this section of the Augusta-Richmond County Code is included in Appendix E for reference. Additional information regarding vicinity water supply and the completed well survey is presented in Appendix F of the 2009 SCM and is included in Appendix C of this document for reference.

3.4.2.3 VAPOR INTRUSION

Vapor intrusion was considered a potential exposure pathway due to elevated groundwater concentrations of benzene and naphthalene for buildings located on the Augusta MGP Site. A vapor intrusion evaluation using soil vapor sampling, was conducted in October 2010 in buildings located on Parcels 186, 187, 188, 227, and 230. The samples were analyzed for

benzene, ethylbenzene, naphthalene, toluene, TCE, m&p-xylenes, and o-xylenes. The evaluation of data per EPA Vapor Intrusion Guidelines determined that there was a potential for vapor intrusion of benzene, ethylbenzene, and TCE because these constituents were detected above their target risk values. This required that indoor air samples for these constituents be collected as the next step in the evaluation. An indoor VI evaluation was conducted with two sampling events in May and November 2012 as described in Section 3.0. Indoor air samples were analyzed for benzene, ethylbenzene, and TCE.

As reported in the February 2013 Tier 3 Indoor Air Quality Sampling Report, all detected indoor air concentrations of TCE and ethylbenzene were below target indoor air concentrations during both sampling events. Detected concentrations of these compounds did not exceed the screening level target indoor air concentrations based on 10^{-6} risk. Benzene concentrations detected in ambient air samples exceeded the screening level based on 10^{-6} risk but were below the 10^{-5} target risk concentration appropriate for a Tier 3 site-specific assessment, and were consistent with benzene concentrations detected in many of the indoor air samples. Detected indoor air concentrations of VOCs during the study were below risk-based target concentrations, indicating that residential exposures to VOCs in indoor air at the former Augusta MGP Site do not pose an unacceptable risk to human health.

The final VI evaluation submitted in February 2013 as the Tier 3 Indoor Air Quality Sampling Report concluded that the results of indoor air, crawl space air, ambient air, and forensics sampling at Blocks C and E did not indicate the presence of a complete vapor intrusion exposure pathway. It further stated that subsurface impacts at the Augusta MGP Site do not appear to be the source of benzene detected in indoor air samples. Vapor intrusion will be considered as a potential exposure pathway upon completion of the planned corrective action. As necessary, VI engineering controls will be considered on a property-by-property basis.

4.0 PLANNED VOLUNTARY INVESTIGATION AND REMEDIATION PLAN

As discussed in Section 2, due to the impacts in the Galliard and Bedrock zones and the presence of residual and saturated BPLM in the saturated zone (OU-2) above the top of Saprolite, additional corrective was deemed necessary by EPD to support the overall groundwater remedy. The initial focus of this VIRP will be to address Subareas 1, 2 and 3 to support the overall groundwater remedy, consistent with the Site's new proposed Consent Order to describe actions planned to bring the Site into compliance with applicable VRP standards and address EPD's December 6, 2013 letter consistent with the framework and governing provisions of the VRPA. The HSRA Consent Order (EPD-HW-1390) for the former Augusta MGP will be superseded by the proposed VRP Consent Order (EPD-HW-011) that was signed by AGLC on July 22, 2014 and was placed on public notice on August 11, 2014.

4.1 REMEDIAL ACTION OBJECTIVES

The overall goal of this VIRP is to describe the actions planned to bring the Site into compliance with applicable cleanup standards as required under the VRPA and detailed in proposed VRP Consent Order for the Site including addressing EPD's December 6, 2013 comment letter consistent with the framework and governing provisions of the VRPA. Remedial Action Objectives (RAOs) have been developed to define the goals of this VIRP. The following RAOs were developed:

- Immobilize remaining source material (BPLM impacted areas) in the Galliard Zone to the extent practicable.
- Reduce extent of dissolved phase COIs in groundwater above applicable VRP cleanup standards, and
- Meet applicable drinking water criteria for Site COIs in groundwater at the hypothetical point of exposure (POE).

The actions planned to meet these objectives are described in the following sections.

4.2 ADDITIONAL INVESTIGATION

Prior to remedial actions, limited additional investigation is necessary to delineate residual BPLM in Subareas 2 and 3 and to understand the extent of possible TCE impacts in

groundwater in the Galliard zone from an off-site source in Block C. Details of the planned investigations are presented below.

4.2.1 SOIL SAMPLING FOR VISUAL BPLM ANALYSIS

The planned investigative activities include soil borings for additional characterization and delineation for Subareas 2 and 3. Initial soil borings will be located based on the observed extent of BPLM as illustrated on Figure 4-1. Additional soil borings will be conducted on either side of Walton Way just east of the 8th Street/Walton Way intersection as well as portions of Block E. Supplemental borings will be performed as needed based on visual observations of the soil cores. Up to 32 additional borings are anticipated to complete the planned investigative activities.

The soil borings will be installed using direct push technology (DPT) and extended through the Alluvial and Gaillard formations to the top of Saprolite. Soil cores will be collected by advancing a five-foot polyethylene lined dual tube stainless steel sampler through the designated sample depth interval. Soil cores will be collected continuously from ground surface to the top of Saprolite (approximately 30-ft bgs). Upon extraction from the sampler, the soil core will be examined for the presence of visual staining. Soil cores will be logged by a qualified professional in accordance with the Site Specific Manufactured Gas Plant (MGP) soil logging protocol (RETEC 2003) that is included in Appendix C for reference.

All down-hole equipment used for the collection of soil cores will be decontaminated prior to advancing each individual borehole to prevent cross-contamination. The work will be conducted in accordance with a site specific Health and Safety Plan (HASP). Soil cuttings and other investigation derived materials (IDM) generated during the investigation will be containerized in 55-gallon drums, properly labeled, and left on the North Parcel, pending analytical results and final disposition. Prior to initiating DPT operations, applicable permits will be received and the utilities protection center will be contacted to obtain utility clearance for the site. A private utility locator will also be employed to clear the area around each of the boring locations.

4.2.1.1 REPORTING

Once visual observations of the soil cores are logged, the information will be tabulated and the figures summarizing the investigation will be updated to incorporate the newly acquired data, including the interpreted extent of BPLM from the visual analysis. The BPLM additional delineation will then be used to refine the ISS remediation boundary to be incorporated into the VIRP.

4.2.2 MONITORING WELL INSTALLATION

Three new monitoring wells will be installed in Block C for the purpose of better understanding TCE impacts. The locations for these wells will be selected to complement the existing monitoring well network to better understand TCE impacts and groundwater flow direction within the Galliard Formation. These wells will be constructed comparable to MW-401D and terminate at approximately 36-ft bgs. The proposed monitoring well locations are presented on Figure 4-1 and may be slightly adjusted contingent upon conditions encountered in the field.

The new monitoring wells will be installed using a Roto-Sonic drill rig equipped with 6x4 drilling rods. During advancement of the borehole, soil cores will be collected continuously in 10-foot polyethylene soil core sample liners, and logged in accordance with the specific MGP soil logging protocol. Analytical testing of soils from these three monitoring well borings will not be performed. The borings will be advanced through the Alluvium and Gaillard formations to the top of Saprolite (approximately 36-feet bgs) and the well installed as described below.

All down-hole equipment used for monitoring well installation will be decontaminated prior to drilling each individual well to prevent cross-contamination. The work will be conducted in accordance with a site specific Health and Safety Plan (HASP). Soil cuttings, well development water, and other investigation derived materials (IDM) generated during installation of the monitoring wells will be containerized in 55-gallon drums, properly labeled, and left on the Western Parcel, pending analytical results and final disposition. Prior to initiating drilling, applicable permits will be received and the utilities protection center will be contacted to obtain utility clearance for the site. A private utility locator will also be employed to clear the area around each of the proposed monitoring well locations.

The monitoring wells for TCE will be constructed of 2-inch I.D. flush joint threaded Schedule 40 PVC with ten feet of 0.010-inch machine slotted screen and will be installed in accordance with Science and Ecosystem Support Division (SESD) guidance document SESDGUID-101-R0 *Design and Installation of Monitoring Wells*.

Newly installed wells will be completed at the surface with lockable stick-up well covers. At least 24 hours after installation, the newly installed wells will be properly developed to remove sediment and drilling fluids in preparation for groundwater sample collection. Well development will consist of pumping of the well while monitoring the water quality parameters of temperature, pH, specific conductivity and turbidity. Well development will be considered complete when a minimum of five well volumes of water have been removed, the water quality parameters have stabilized, and the turbidity is less than 10 NTU.

Prior to sampling for TCE, the wells will be purged using low-flow purging methodology as described in EPA Region 4's FBQSTP *Groundwater Sampling Operating Procedure (Groundwater Sampling OP;* SESDPROC-301-R1). Groundwater quality parameters, including turbidity, specific conductance, temperature, and pH will be monitored during well purging. Purging will continue until the monitored water quality parameters stabilize, indicating the presence of representative formation water, at which point the samples will be collected. Samples will be collected for TCE analysis using EPA method 8260 in appropriate environmental grade sample containers, properly labeled, placed immediately on ice, and shipped under proper chain-of-custody protocol for overnight delivery to the laboratory within the allowable sample holding time.

4.2.2.1 REPORTING

Once the analytical laboratory reports for field sampling activities have been received, the data will be tabulated, and the figures summarizing the groundwater testing for the newly installed monitoring wells will be updated to incorporate the newly acquired data and reported to EPD in the following semi-annual status report. The groundwater data will then be used to better understand TCE groundwater impacts.

4.3 PLANNED CORRECTIVE ACTION

To comply with VRPA requirements and the Consent Order, AGLC will implement additional corrective action at the Site to further address the source and achieve applicable VRP cleanup standards for groundwater at the applicable POE. Based on available data, viable alternatives for corrective action were evaluated in the previously submitted FS and after considering EPDs comments in both their October 9 and December 6, 2013 letters, a site-specific remedy has been selected.

AGLC proposes to undertake a sequenced approach to further remediation whereby one phase of remediation is completed which compliments and enhances the next phase of remediation while progressing toward the goal of overall Site compliance with applicable standards under the VRP.

Proposed corrective action for the remaining source areas to support the groundwater remedy and the proposed approach to addressing groundwater are described in more detail in the sections below, respectively.

4.3.1 BPLM IMPACTED SUBAREAS

AGLC proposes to address remaining source material in the saturated Galliard zone, to the extent practicable, by immobilization using ISS in Subareas 1, 2, and 3 as depicted in Figure 4-2. The primary objectives of ISS are: 1) a substantial reduction in permeability, 2) immobilization of BPLM via solidification, and 3) a reduction in contaminant leaching to groundwater.

ISS has been successfully implemented and achieved relevant performance criteria at other former MGP sites, including the Augusta MGP Site at the Northern Parcel and Portions of Block A as discussed in Section 2.3 and presented in Figure 2-2.

4.3.1.1 PRE-EXCAVATION ACTIVITIES

Prior to final planning and scheduling of the ISS activities and selection of a remediation contractor, further investigation of the source areas as described in Section 4.2 will be

performed. The data obtained will be used to define the extent of the areas for ISS implementation.

Upon EPD's acceptance of the Site into the VRP, AGLC will begin the process of obtaining necessary land disturbance permits and approvals from a permitted Subtitle D landfill for disposal of materials to be excavated as part of the ISS remediation. A waste profile will be prepared that will include the site location, generator contact information, and data regarding the physical and chemical characteristics of the soil. Mobilization activities will be conducted concurrently with site preparation work. Subsurface utilities will be marked and the additional BPLM investigation borings will be completed to define the extent of ISS in the Subareas 2 and 3. A stockpile area or areas will be established to manage the excavated overburden soils. The stockpile areas will be prepared and will be surrounded with erosion control measures as necessary to minimize sediment migration. The planned source ISS areas will then be identified and marked on the ground and an equipment decontamination area will be constructed. Prior to beginning any intrusive work, any Best Management Practices (BMPs) such as silt fencing that may be required as part of the land disturbance permit will be installed.

4.3.1.2 SITE ACCESS AND SECURITY

Site access and security for VIRP implementation will be developed as part of the design. Site access will be limited to necessary personnel only using appropriate fencing, gates, and other security measures. Construction management areas and areas for equipment staging and material storage will be established prior to initiation of the work and will be located inside the secured area.

4.3.1.3 PERMITTING AND EROSION CONTROL MEASURES

Prior to commencing the proposed ISS work, appropriate permits and BMPs will be put into place.

The selected remediation contractor will perform the proposed remedial activities in accordance with their land disturbance permit and erosion, sedimentation and pollution control plan in such a manner as to control and limit erosion and sedimentation on and adjacent to the work. Both temporary and permanent measures may be used to control erosion and storm water runoff.

4.3.1.4 DESIGN CRITERIA

A performance-based design, with the Owner's Engineer working in conjunction with the selected contractor, is proposed for ISS at the Site for Subareas 1, 2, and 3. Although the final design has not been completed, it is anticipated that ISS will be accomplished by removing the overburden above the saturated zone and utilizing a large diameter auger (7 ft to 10 ft in diameter) and drill table mounted on tracked equipment for BPLM impacts in the Galliard saturated zone to the top of Saprolite. Overburden material will be staged and reused onsite provided it meets applicable standards.

A grout mix, consisting of water, cement and admixture(s) is pumped from a batch plant to the ISS drilling equipment that discharges the grout through the bottom and along the auger blades as the auger mixes the soil. The auger mixes the soil with the grout in a column to form a homogeneous mixture. Soil columns are installed in an overlapping sequence so that a monolithic solidified mass is created within the horizontal and vertical limits of ISS. During refinement of the performance-based design, alternate ISS methods and techniques may be evaluated and selected for implementation based on cost and schedule considerations. There may also be obstructions or encumbrances (i.e., buildings, building foundations, utilities, etc.) that restrict the use of large diameter augers for solidification. In these areas, bucket mixing or some other in-situ remedial approach will be considered to augment the ISS approach.

The proposed performance criteria, consistent with the Basis of Design Work Plan (Law, 2002), for the ISS-treated soil material below the groundwater table to meet the remedial objectives for BPLM includes:

- Unconfined compressive strength greater than or equal to 50 pounds per square inch (psi) – ASTM methods D2166 or D1633,
- Hydraulic conductivity less than or equal to 1 x 10^{-6} centimeters per second (cm/sec) – ASTM method D5084, and
- Mass loss of less than 10 percent when subjected to wetting/drying cycles – ASTM – D4843-88.

4.3.1.5 DESIGN ANALYSIS

Where ISS will be implemented, impacted unsaturated soils will be excavated down to the working platform. The pre-ISS excavation will generate both impacted and non-impacted soil and debris, which will be segregated by the remediation contractor. Non-impacted soil and debris will be stockpiled, sampled, and analyzed prior to reuse on-site. Impacted material will be managed in accordance with applicable federal, state, and local regulations.

ISS treatment will be accomplished via a series of overlapping ISS treatment columns. The ISS treatment columns will be keyed in to the top of Saprolite. In conjunction with the selected contractor, a specific ISS column layout will be developed using overlapping adjacent columns to effectively solidify 100% of the mixing area. Each column will be individually labeled for identification purposes. Columns will be identified and marked in the field using surveying methods. The surveying data for each column will be recorded and used to relocate columns for verification sampling. The quantity of grout injected into each column will take into account the amount of overlap of previously installed columns so that no more than the design reagent addition rate is applied to each cubic yard of soil treated. For each column mixed, reagent injection will be calculated based on the effective untreated volume of soil in the given column. Figure 4-2 provides a conceptual layout for the ISS columns. During ISS treatment, swell material as a result of the soil mixing will be generated and managed within the footprint of the ISS to the extent possible. ISS swell that cannot be managed on-site will be transported and disposed off-site under proper manifest protocol.

The selection of grout mix designs for ISS will be based on experience gained during previous ISS of the other parcels at the Augusta MGP Site. The grout mix design will be selected to ensure the design criteria in Section 4.3.1.4 are achieved.

<u>ISS Dewatering/Water Treatment</u>

Impacted water may be generated by three operations during implementation of the corrective action:

- Decontamination of demolition debris;

- ISS equipment decontamination; and,
- Dewatering of the excavation and ISS area to remove surface water and groundwater (contact water).

It is anticipated that contact water generated from these operations will be treated in an on-site portable wastewater treatment system. Calculations will be performed prior to designing the water treatment system to assist in determining sufficient capacity of the system. The remedial action contractor will develop the exact mechanical configuration for the planned treatment system. Discharge from the water treatment system will be to the local publicly owned treatment works (POTW). The treatment system will be required to meet facility pretreatment requirements included in the sewer ordinance and POTW permit.

Air Monitoring

Air monitoring plans, including perimeter monitoring, are required and being prepared to outline specific project air monitoring requirements. The plans include the frequency of measurement and methodology and acceptable fence line concentration limits for the work area breathing zone and for outside receptors.

Cleanup Verification Methods

The QA/QC plan consists of the following five steps:

Step 1. Verify Amounts of Additives Added to Each Column
Step 2. Collect Depth-Representative Samples for Evaluation of Mixing
Step 3. Composite Samples from Different Depths
Step 4. Select One Sample per 1,000 Cubic Yards for Confirmation Testing
Step 5. Measure UCS, K and Presence of Free Liquids at 7-Day Accelerated Cure

Each step is discussed below.

Step 1. Verify Amounts of Additives Added to Each Column

Each column will be planned in advance, and the amount of grout to be added to the full column (in gallons) will be exactly known. The grout delivery will be metered and the amount of grout measured for each column. The remedial action contractor will ensure that the minimum amount specified will be injected in each column. If an amount below the minimum is injected, that column will be re-mixed with additional grout, or sampled and tested with the complete regimen of analytical requirements. If the analyses show failure, the column will be re-mixed with additional grout. Additionally, a minimum number of two equivalent complete passes of the mixing tool will be required.

Step 2. Collect Depth-Representative Samples for Evaluation of Mixing

The remedial action contractor will collect depth-representative samples (see discussion in next paragraph) every ten columns, with a minimum of one set of depth-representative sample per day (if less than 10 columns are completed in a day). The columns to be sampled will be randomly selected within each group of 10 columns to ensure that no bias is introduced in the sampling.

An *in situ* sampler will be used to obtain samples from various depths of the sampled column. Specifically, one *in situ* sample per 7-foot (or fraction thereof) of depth will be collected. This sampling frequency corresponds to one sample for columns of depth less than or equal to seven feet, two samples for columns of 8 to 15 feet depth, three samples for columns of 16 to 23 feet depth, etc.

After the samples are collected, they will be placed in 5-gallon buckets and transported to an area where they can be evaluated. A technician will perform the evaluation by spreading the samples over a light-colored piece of plastic and observing the degree of homogeneity or mixing.

To qualitatively and quantitatively evaluate the degree of mixing, the following criteria will be used: color, homogeneity, absence of free product, and pH. These criteria are explained below.

- **Color**. The color of the ISS mixture is a blend of the color of the treated materials and the ISS reagent. In general, well-mixed materials (even clods) will be coated with grout and the color of the grout will predominate. A project specific color scale ("gray scale") can be made to permit assigning numerical values to the color of the samples. Unmixed particles will contrast with the grout and provide a color contrast.
- **Homogeneity**. The treated material will be inspected, visually, for overall mixing. The treated material shall be thoroughly mixed into a homogeneous mass, free from large lumps or pockets of fines, sand or gravel. Occasional lumps of soil, up to 6 inches in their largest dimension, will be permitted. The samples from each representative depth will be comparable as far as these characteristics are concerned.
- **Absence of Free Product**. The treated material will be inspected to ensure that no free product is present within it.
- **pH**. The pH of the treated material will be measured in the field using colorimetric paper. A pH analysis will be done on samples from each depth interval. Samples with pH less than 10.5 s.u. will be considered not adequately mixed.

A trained employee of the remedial action contractor will perform these evaluations, photograph the samples, and fill out and sign a form that will be part of the QA/QC record. Should the materials from any depth fail one or more of these criteria, the column will be considered not adequately mixed, and the remedial action contractor will be instructed to re-mix it.

Step 3. Composite Samples from Different Depths

Once samples from a column have passed the evaluation in Step 2, they will be considered uniformly mixed, indicating that samples from each depth are equivalent. As such, they will be composited together to generate a single sample representative of all depths of the sampled column. At this time, at least 10 molded specimens will be made from the composite sample and archived for further testing at a later time as explained below.

Step 4. Select One Sample per 1,000 Cubic Yards for Confirmation Testing

One sample per 1,000 in-place cubic yards of treated material will be analyzed for UCS, K, absence of free liquid, and wet/dry durability.

Step 5. Measure UCS, K and Presence of Free Liquids at 7-Day Accelerated Cure

In this step, the remedial action contractor will perform all tests necessary to demonstrate compliance with the performance criteria, except wet/dry durability (this test will be performed later, as discussed below). In the full-scale implementation, the tests will be performed after 7 days of curing by using an accelerated curing procedure. In this procedure (ASTM C-684), the sample is immersed in a warm water bath at 65°C for 24 hours and then allowed to cool. From experience, an accelerated curing period is approximately equivalent to a 28-day unaccelerated curing period.

This change is necessary to minimize the impact on the project of potential failures of the confirmation samples. Having this information 7 days after the column has been installed, rather than 28 days, will greatly reduce the impact of potential confirmation samples failures on the project.

If the sample does not meet any of the criteria specified for the project (see Acceptance Criteria below), the testing will be terminated without performing a wet/dry durability test. Archived samples from columns proximate to the one that failed will also be evaluated using the same procedure to better define the area of failure and the area corresponding to the confirmation sample failure will be addressed further.

If the sample meets the K, UCS and free liquid criteria, a wet/dry durability test will be performed. The reason this test will be performed, only after the results of the previous three tests have been received from the lab, is that the wet/dry durability test takes about 30 days (after the curing period) to complete. Thus, this test will only be performed if the other three criteria have already been met. If the specified performance criterion for this test (i.e., mass loss less than 10 percent) is met, all criteria will have been met and the 1,000 cubic yards of which the sample was representative will be identified as having passed all ISS performance criteria.

If the performance criterion for the wet/dry durability test is not met, archived samples from columns in general proximity to the one that failed will be retrieved and tested for wet/dry durability. In addition, the other three performance criteria will be used to better define the area

of failure and the area corresponding to the confirmation sample failure will then be addressed further.

4.3.1.6 MATERIAL DISPOSAL

The excavated impacted materials will be characterized and pre-approved for disposal at licensed off-site Subtitle D disposal facilities, as appropriate. The excavated overburden materials will be segregated and stockpiled based on knowledge of previous investigations/restoration programs, tested and, based on the analytical results, may be 1) reused on-site as is for backfill material, 2) transported as is for off-site disposal at an approved landfill, or 3) stabilized and disposed off-site at an approved landfill.

Other solid wastes anticipated to be generated during the proposed overburden excavation activities include concrete, asphalt, polyethylene liners from the waste staging areas, personal protective equipment (PPE), and disposable sampling supplies. The liners, PPE, and disposable sampling supplies will be managed with soil to be disposed of offsite. Other wastes that might be generated will be appropriately segregated, decontaminated, characterized, and disposed of properly.

Soils and debris will be loaded into lined dump trucks using an excavator or backhoe. Transport vehicles that are exposed to visible accumulations of soil during loading that may be dropped during transport will be decontaminated prior to leaving the site. In order to minimize the volume of waste generated, dry decontamination procedures, consisting of the use of brooms and other hand tools, will be the primary method used on vehicles and equipment during the project, as necessary. However, an equipment/vehicle wash station will be activated if needed to ensure that contaminants are not spread beyond the site boundaries. Any wash water collected will be properly disposed.

Each load of contaminated material removed will be accompanied by a manifest signed by a representative of the generator. Each manifest, in conjunction with the corresponding landfill weight ticket, will be used to document the amount of material removed from the site.

4.3.1.7 HANDLING OF STOCKPILED SOILS

Stockpiled soils from the overburden excavations not impacted above applicable cleanup standards will be reused as fill to restore site grades. To ensure that this material complies with appropriate cleanup standards for the Site, the stockpiles will be sampled and analyzed as follows: one composite sample will be collected for each 500 cubic yards of stockpiled soil and analyzed for VOCs and SVOCs using EPA Methods 8260B and 8270C. Soils not meeting the cleanup goals will be properly disposed off-site as described in Section 4.3.1.6. Soil stockpiles will have appropriate runoff berms installed and will be appropriately covered to mitigate dust and stormwater runoff.

4.3.1.8 FILL PLACEMENT, FINAL GRADING AND RESTORATION

After ISS activities are complete, the remaining excavations will be filled and graded to restore the pre-excavation topography using off-site borrow soil and on-site stockpiled soil. All fill soil obtained from off-site borrow sources will be tested for priority pollutants to ensure that regulated substances meet applicable cleanup standards and concentrations are below HSRA Notification Concentrations.

After the excavations are graded, vegetative seed will be planted for permanent erosion control. In the interim, the seeded areas will be covered (e.g. mulched) to minimize erosion and maintain the seeding until the site is revegetated. The erosion control measures outlined in Section 4.3.4 will be inspected and maintained until the vegetative growth covers 70% of the affected areas.

4.3.1.9 HEALTH AND SAFETY

In addition to air monitoring, a site-specific health and safety plan (HASP) for the selected remedial work will be prepared to identify potential risks, identify responsible on-site personnel, and establish site safety procedures, including contingency planning, and necessary level(s) of PPE. Because of the possibility of exposure to soils containing regulated constituents, all personnel engaged in field activities within the exclusion zone during the proposed work are required to have completed 40-hours of Health and Safety Training for Hazardous Waste Site Operations and applicable 8-hours Refresher Training, consistent with OSHA requirements as

set forth in 29 CFR, Part 1910.120. All personnel engaged in the field activities will read and sign the project HASP and any required addenda. All personnel will be required to wear personal protective equipment, specified in the HASP, while engaged in field activities or while present on the Site as field activities are in progress.

4.3.2 GROUNDWATER

The groundwater pathway is currently incomplete as groundwater is not utilized on-site or in the immediate Site vicinity as documented by the 2009 Well Survey (MACTEC, 2009c). As part of this VIRP, AGLC will update the Well Survey for the Site consistent with the 2009 document. Local statute makes it unlawful to dig, operate or maintain any well within the Urban Services District. As such, a groundwater usage limitation by Governmental IC for the Site has, in effect, been established, and the pathway is incomplete.

During the planned corrective action as described in Section 4.3.1, source material will be immobilized, thereby significantly reducing the potential for ongoing impacts to both Galliard and Bedrock groundwater. In order to allow for construction activities in Subarea 2, the current bedrock recovery system will be decommissioned. Additionally, once design and construction sequencing for the planned corrective action is finalized, AGLC will present a modified groundwater monitoring program in their subsequent semi-annual status report to follow during implementation of the ISS. A modification to their current groundwater monitoring program will be necessary to accommodate construction activities.

After completion of the planned ISS, AGLC will develop groundwater cleanup criteria/goals and control strategies for the Site to achieve compliance with appropriate VRP cleanup standards for both the Galliard and Bedrock zones. Additionally to assist in monitoring the effectiveness and sustainability of the remedy, AGLC plans to continue groundwater monitoring in both the Galliard and Bedrock zones for three years consistent with their current groundwater program and as described in Appendix F in order to observe COI concentration trends over time. A reduction in COI concentrations is expected to occur as a result of the planned corrective action. AGLC also plans to keep the bedrock recovery system off during this monitoring period as to not skew trends in the Bedrock or Galliard COI concentrations. The estimated extent of dissolved

phase impacts in both the Galliard and Bedrock before remediation with the hypothetical POE is shown in Figure 4-3. This will be considered the baseline to compare to post remediation.

As required under the VRPA, AGLC is planning to identify point of demonstration wells for both the Galliard and Bedrock formations after completion of the ISS and will document these as appropriate in semi-annual status reports. It is premature to establish point of demonstration wells at this time because implementation of the ISS will alter groundwater flow in the Galliard. In addition, by immobilizing potential continued source of BPLM in both the Galliard and the Bedrock formations, the appropriate location of the point of demonstration wells in both formations will require reevaluation post remedy implementation.

5.0 PRELIMINARY SCHEDULE, COST AND CONTINUED MONITORING PLAN

A preliminary schedule for the planned corrective action is presented in Figure 5-1 including the VIRP application milestones. This initial schedule will be refined after receiving input from the remedial contractor on the implementation schedule. Upon approval of this VIRP and enrollment in the VRP, AGLC will implement the investigation and planned corrective action and submit semi-annual status reports describing the implementation of this plan during the preceding period.

The design of the planned corrective action is in progress and will be finalized after approval of this VIRP by EPD. AGLC is estimating that implementation of the additional investigation and proposed ISS will be approximately $12.5 million. This cost will be refined upon completion of the investigation and design and together with input from the selected remediation contractor.

As described in Section 4.3.2, AGLC proposes to continue its semi-annual groundwater monitoring as presented in Appendix F. The groundwater monitoring program may be revisited after corrective action is complete and remedy effectiveness is evaluated. In accordance with the VRPA, upon determination of remedy effectiveness, AGLC will submit a Compliance Status Report for the Site in its entirety.

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TABLES

Table 1-1
Site-Specific Constituents of Interest

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

Prepared by: TAN 7/15/14
Checked by: JDD 7/15/14

Table 3-1
Groundwater Analytical Results for Galliard Formation Wells

Category			VOCs								SVOCs							
Constituent			Acetone	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethylene	Xylenes, total	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Type 1 RRS			4,000	5	4,000	700	5	1,000	5	10,000	2,000	10	10	0.1	0.2	0.2	10	10
Location ID	**Sample Date**	**Sample Type**	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-12	1/8/2014	N	< 50	**2,200**	< 5.0	**720**	< 5.0	**330**	< 5.0	**530**	**71**	**10.0**	**1.7**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2014	DUP-02	< 50	**2,200**	< 5.0	**680**	< 5.0	**330**	< 5.0	**520**	**68**	**12.0**	**1.8**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	**1,900**	< 5.0	**540**	< 5.0	**160**	< 5.0	**350**	**23**	**1.0**	**0.74**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	DUP-02	< 50	**1,900**	< 5.0	**530**	< 5.0	**200**	< 5.0	**330**	**25**	**1.0**	**0.73**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 100	**220**	< 5.0	**93**	< 5.0	< 5.0	< 5.0	**8.2**	< 22	< 22	< 22	< 22	< 22	< 22	< 22	< 22
	1/9/2013	DUP-02	< 100	**120**	< 5.0	**52**	< 5.0	< 5.0	< 5.0	**6.4**	< 22	< 22	< 22	< 22	< 22	< 22	< 22	< 22
	7/25/2012	N	< 100	**73**	< 5.0	**39**	< 5.0	< 5.0	< 5.0	< 5.0	**33**	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	7/25/2012	DUP-05	< 100	**69**	< 5.0	**34**	< 5.0	< 5.0	< 5.0	< 5.0	**20**	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5
	1/18/2012	N	< 50	**100**	< 6.0	**120**	< 10	< 3.3	< 1.3	< 2.0	**32**	**1.8**	**0.83**	< 0.097	**0.17 J**	< 0.097	< 0.097	< 0.097
	1/18/2012	DUP-03	< 5.0	**71**	< 0.60	**76**	< 1.0	**0.90 J**	< 0.13	**3.3 J**	**52**	**4.8**	**1.9 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-19	1/9/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	**0.1**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	**0.11**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/25/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/19/2012	N	< 50	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	**9.4**	< 0.20	< 0.098	< 0.098	< 0.098	**0.10 J**	**0.13 J**	**0.20**	< 0.098	< 0.098
MW-21	1/10/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**49**	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/11/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**150**	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**130**	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**86**	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/18/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	**13**	< 0.20	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098
MW-22	1/9/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/8/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
MW-202DR	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	**0.060**
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097
MW-203	1/14/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/10/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	1/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-205	1/9/2014	N	< 50	**3,100**	< 5.0	**360**	< 5.0	**99**	< 5.0	**250**	**14**	**6.7**	**3.7**	**1.3**	**0.73**	**0.59**	**0.27**	**0.2**
	7/11/2013	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	N	< 100	**4,300 D**	< 5.0	**400 D**	< 5.0	**940 D**	< 5.0	**500 D**	< 22	< 22	< 22	< 22	< 22	< 22	< 22	< 22
	7/26/2012	N	< 100	**3,300 D**	< 5.0	**490 D**	< 5.0	**1,100 D**	< 5.0	**640 D**	**11**	**6.9**	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9
	1/25/2012	N	**5.7 J**	**6,600**	< 0.60	**660**	< 1.0	**1,500**	< 0.13	**640**	**11**	**14**	**4.3**	**1.5 J**	< 1.1	< 1.1	< 1.1	< 1.1
MW-206	1/14/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/10/2013	N	< 100	**6.9**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/26/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MW-207	1/6/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/8/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/7/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-303	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	**0.14**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	**0.13**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/7/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	**0.26 J**	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.095	< 0.095	**0.12 J**	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
MW-304	1/8/2014	N	< 50	**27**	< 5.0	**12**	< 5.0	< 5.0	< 5.0	**26**	**32**	< 1.0	**0.93**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/11/2013	N	< 50	**76**	< 5.0	**28**	< 5.0	< 5.0	< 5.0	**29**	**53**	< 1.0	**1.1**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	**10**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**31**	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	7/25/2012	N	< 100	**43**	< 5.0	**36**	< 5.0	< 5.0	< 5.0	**43**	**58**	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
	1/18/2012	N	< 5.0	**140**	< 0.60	**0.97 J**	< 1.0	< 0.33	< 0.13	**14**	**71**	< 0.11	**0.5**	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MW-306D	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-307D	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MW-401D	1/13/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**41**	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**41**	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 200	< 10	< 10	< 10	< 10	< 10	**33**	< 10	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/24/2012	N	< 200	< 10	< 10	< 10	< 10	< 10	**28**	< 10	< 0.20	**0.27**	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	1/18/2012	N	< 5.0	< 0.25	< 0.60	< 1.1	< 10	< 3.3	**38 J**	< 2.0	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097
MW-402D	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	**0.16 J**	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-404DR	1/13/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
	7/26/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/19/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MW-408D	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**32**	< 1.0	**0.83**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**17**	< 1.0	**0.39**	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**32**	**0.40**	**0.87**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	7/25/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**30**	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
	1/25/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11 *	< 0.11	< 0.11

Table 3-1
Groundwater Analytical Results for Galliard Formation Wells

Category			VOCs								SVOCs							
Constituent			Acetone	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethylene	Xylenes, total	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Type 1 RRS			4,000	5	4,000	700	5	1,000	5	10,000	2,000	10	10	0.1	0.2	0.2	10	10
Location ID	**Sample Date**	**Sample Type**	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-502D	1/14/2014	N	< 50	430	< 5.0	1,500	< 5.0	67	< 5.0	1,000	130	13	7.4	1.5	1.4	1.0	0.61	0.40
	1/14/2014	DUP-06	< 50	450	< 5.0	1,600	< 5.0	69	< 5.0	1,100	130	13	7.4	1.6	1.4	1.0	0.61	0.47
	7/11/2013	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	N	< 2,000	430	< 100	2,600	< 100	170	< 100	2,400	3,800	1,900	2,000	1,300	1,100	1,100	330	< 21
	1/10/2013	DUP-05	< 2,000	400	< 100	2,700	< 100	210	< 100	2,600	6,200	3,100	3,200	2,100	1,900	1,800	530	< 22
	7/25/2012	N	< 2,000	410	< 100	1,100	< 100	< 100	< 100	780	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	7/25/2012	DUP-06	< 100	370 D	< 5.0	850 D	< 5.0	54	< 5.0	520	190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/25/2012	N	< 100	440	< 12	1,600	< 20	72 J	< 2.6	1,200	200	67	43	35	35	27*	14	13
	1/25/2012	DUP-06	< 250	510	< 30	1,600	< 50	120 J	< 6.5	1,200	180	39	11	2.9	3.0	2.4*	1.5 J	1.1 J
MW-505D	1/8/2014	N	< 50	< 5.0	< 5.0	67	< 5.0	< 5.0	< 5.0	59	55	1.1	1.3	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/11/2013	N	< 50	< 5.0	< 5.0	64	< 5.0	< 5.0	< 5.0	43	56	2.5	1.0	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/8/2013	N	< 100	< 5.0	< 5.0	79	< 5.0	11	< 5.0	61	6.6	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	7/26/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	36	7.7	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
	1/24/2012	N	< 5.0	2.2 J	< 0.60	0.35 J	< 1.0	< 0.33	< 0.13	0.96 J	87 D	7.6	0.54	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MW-600	1/9/2014	N	< 2,500	20,000	< 250	2,400	< 250	12,000	< 250	3,700	21	190	5.6	0.97	0.72	0.47	0.26	0.18
	7/11/2013	N	< 2,500	7,000	< 250	990	< 250	5,300	< 250	2,100	6.2	53	1.5	< 0.50	< 0.50	< 1.0	< 0.10	< 0.50
	7/11/2013	DUP-04	< 2,500	5,900	< 250	760	< 250	4,300	< 250	1,600	6.3	< 100	1.7	0.31	0.23	0.19	< 0.10	0.096
	1/10/2013	N	< 20,000	26,000	< 1,000	1,300	< 1,000	12,000	< 1,000	3,000	< 22	93	< 22	< 22	< 22	< 22	< 22	< 22
	7/26/2012	N	< 5,000	48,000 D	< 250	1,300	< 250	24,000 D	< 250	5,100 D	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/25/2012	N	790 J	38,000 D	< 30	1,800	< 50	15,000 D	< 6.5	5,400	12 D	210 D	9.0 D	3.6 D	3.6 D	3.0 D*	1.7 JD	1.1 JD
MW-601	1/9/2014	N	< 5,000	18,000	< 500	1,300	< 500	6,100	< 500	2,500	14	50	7.7	0.40	< 0.050	< 0.10	< 0.10	< 0.050
	7/11/2013	N	< 2,500	18,000	< 250	1,000	< 250	8,700	< 250	3,400	18	64	6.7	< 0.50	< 0.50	< 1.0	< 0.10	< 0.50
	1/10/2013	N	< 2,500	28,000	< 130	950	< 130	13,000	< 130	3,700	19	81	< 19	< 19	< 19	< 19	< 19	< 19
	7/25/2012	N	< 25,000	27,000	< 1,300	< 1,300	< 1,300	11,000	< 1,300	3,800	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210
	1/19/2012	N	< 1,300	21,000	< 150	950 J	< 250	8,800	< 33	3,300	18	75	7.1 J	< 4.8	< 4.8	< 4.8	< 4.8	< 4.8
MW-602	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	3.5	< 1.0	0.16	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/7/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	4.3	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	7/23/2012	N	< 5.0	110	< 0.60	3.0 J	< 1.0	0.34 J	< 0.13	1.5 J	11	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	1/17/2012	N	< 5.0	2.1 J	< 0.60	0.11 J	< 1.0	< 0.33	< 0.13	0.45 J	6.7	0.18 J	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MW-603	1/7/2014	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/11/2013	N	< 50	< 5.0	< 5.0	74	< 5.0	< 5.0	< 5.0	39	40	< 1.0	1.6	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050
	1/9/2013	N	< 100	< 5.0	< 5.0	82	< 5.0	< 5.0	< 5.0	40	100	31	< 10	< 10	< 10	< 10	< 10	< 10
	7/26/2012	N	< 100	< 5.0	< 5.0	88	< 5.0	< 5.0	< 5.0	51	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/17/2012	N	< 5.0	2.0 J	< 0.60	120	< 1.0	3.0 J	< 0.13	69	85	4.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Table 3-1
Groundwater Analytical Results for Galliard Formation Wells

Category						SVOCs												Inorganics							
Constituent			Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cyanide	Lead	Mercury	Nickel	Selenium	Thallium	Vanadium	Zinc
Type 1 RRS			0.2	0.3	1,000	1,000	0.4	20	10	1,000	0.006	0.01	2	0.004	0.005	0.1	1.3	0.2	0.015	0.002	0.1	0.05	0.002	0.2	2
Location ID	**Sample Date**	**Sample Type**	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-12	1/8/2014	N	< 0.050	< 0.10	**0.28**	**19**	< 0.050	**3,800**	**14**	**0.27**	< 0.0200	< 0.0500	**0.212**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2014	DUP-02	< 0.050	< 0.10	**0.32**	**19**	< 0.050	**3,300**	**14**	**0.3**	< 0.0200	< 0.0500	**0.213**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	**0.16**	**8.1**	< 0.050	< 0.50	**3.8**	**0.13**	< 0.0200	< 0.0500	**0.225**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	DUP-02	< 0.050	< 0.10	**0.16**	**7.9**	< 0.050	< 0.50	**3.3**	**0.15**	< 0.0200	< 0.0500	**0.221**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 22	< 22	< 22	< 22	< 22	**480**	< 22	< 22	< 0.020	< 0.020	**0.32**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/9/2013	DUP-02	< 22	< 22	< 22	< 22	< 22	**450**	< 22	< 22	< 0.020	< 0.020	**0.32**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 20	< 20	< 20	< 20	< 20	**880**	< 20	< 20	< 0.020	< 0.020	**0.44**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	DUP-05	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	**520**	< 9.5	< 9.5	< 0.020	< 0.020	**0.44**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	< 0.044	< 0.097	< 0.097	**7.3**	< 0.097	**630**	**5.1**	**0.11 J**	< 0.0053	< 0.0046	**0.39**	**0.00096 J**	< 0.0020	**0.0012 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/18/2012	DUP-03	< 0.45	< 1.0	< 1.0	**19**	< 1.0	**3,300**	**12**	< 1.0	< 0.0053	< 0.0046	**0.44**	**0.0014 J**	< 0.0020	**0.0032 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-19	1/9/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0935**	< 0.0100	< 0.0050	**0.0151**	< 0.0100	< 0.010	< 0.0100	< 0.00020	**0.0579**	< 0.0200	< 0.0200	< 0.0100	**0.0985**
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.123**	< 0.0100	**0.0091**	< 0.0100	< 0.0100	**0.012**	< 0.0100	< 0.00020	**0.0568**	< 0.0200	< 0.0200	< 0.0100	**0.142**
	1/9/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.12**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.023**	< 0.010	< 0.00020	**0.073**	< 0.020	< 0.0010	< 0.010	**0.12**
	7/25/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	**0.49**	< 0.19	< 0.19	< 0.020	< 0.020	**0.098**	< 0.0040	< 0.0050	**0.012**	< 0.020	**0.058**	< 0.010	< 0.00020	**0.073**	< 0.020	< 0.0010	< 0.010	**0.14**
	1/19/2012	N	**0.11 J**	< 0.098	< 0.098	< 0.098	< 0.098	**0.20**	< 0.098	**0.23**	< 0.0053	< 0.0046	**0.036**	< 0.00020	< 0.0020	**0.0088 J**	**0.0024 J**	**0.0096 J**	< 0.0040	< 0.000091	**0.023 J**	< 0.0064	< 0.00025	< 0.0024	**0.030**
MW-21	1/10/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.084**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**1.4**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0759**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.066**	< 0.0040	< 0.0050	**0.010**	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	**0.52**	< 0.19	< 0.19	< 0.020	< 0.020	**0.063**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	< 0.044	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.0053	< 0.0046	**0.035**	< 0.00020	< 0.0020	**0.022**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-22	1/9/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**1.6**	**0.092**	< 0.050	< 0.0200	< 0.0500	**0.0322**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/8/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0322**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.020	< 0.020	**0.031**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.044	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.0053	< 0.0046	**0.038**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0023 J**	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/16/2012	N	< 0.043	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0053	< 0.0046	**0.050**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-202DR	1/7/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	**0.065**	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0541**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0519**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.05**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.055**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/16/2012	N	< 0.044	< 0.097	< 0.097	< 0.097	< 0.097	**1.2**	< 0.097	< 0.097	< 0.0053	< 0.0046	**0.062**	< 0.00020	< 0.0020	**0.0049 J**	**0.0058 J**	< 0.0050	< 0.0040	< 0.000091	**0.013 J**	< 0.0064	< 0.00025	**0.0027 J**	**0.038**
MW-203	1/14/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0602**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	**0.0374**	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0757**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	**0.0155**	< 0.0200
	1/10/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.13**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	**0.016**	< 0.020
	7/24/2012	N	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	**2.5**	< 0.22	< 0.22	< 0.020	< 0.020	**0.068**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/23/2012	N	< 0.046	< 0.10	< 0.10	< 0.10	< 0.10	**0.58**	< 0.10	< 0.10	< 0.0053	**0.0046 J**	**0.047**	< 0.00020	< 0.0020	**0.0040 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0070 J**	< 0.0064	< 0.00025	**0.0075 J**	**0.016 J**
MW-205	1/9/2014	N	**0.9**	<0.10	**4.3**	**38**	**0.24**	**1,300**	**41**	**5.0**	< 0.0200	< 0.0500	< 0.0200	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	N	< 22	< 22	< 22	**33**	< 22	**1,400**	**30**	< 22	< 0.020	< 0.020	< 0.010	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 3.9	< 3.9	< 3.9	**47**	< 3.9	**2,300**	**40**	**4.6**	< 0.020	< 0.020	< 0.010	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.012**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	**1.4 J**	< 1.1	**6.2**	**68**	< 1.1	**600 D**	**56**	**7.4**	< 0.0053	< 0.0046	**0.0078 J**	< 0.00020	< 0.0020	**0.0014 J**	< 0.0019	**0.012**	< 0.0040	< 0.000091	**0.0030 J**	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-206	1/14/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.270**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.315**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/10/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	**0.97**	< 0.19	< 0.19	< 0.020	< 0.020	**0.25**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.28**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/23/2012	N	< 0.048	< 0.11	< 0.11	< 0.11	< 0.11	**0.27**	< 0.11	< 0.11	< 0.0053	< 0.0046	**0.14**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-207	1/6/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.353**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/8/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.290**	< 0.0100	**0.0062**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/7/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.35**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.020	< 0.020	**0.34**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.012**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/16/2012	N	< 0.046	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.0053	**0.013 J**	**0.34**	< 0.00020	< 0.0020	**0.0016 J**	< 0.0019	**0.0060 J**	< 0.0040	< 0.000091	**0.0076 J**	< 0.0064	< 0.00025	**0.0051 J**	< 0.0087
MW-303	1/8/2014	N	< 0.050	< 0.10	**0.10**	< 0.10	< 0.050	< 0.50	< 0.050	**0.072**	< 0.0200	< 0.0500	**0.0943**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.113**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/7/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.14**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.048	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	**0.14**	**0.00041 J**	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0073 J**	< 0.0064	< 0.00025	< 0.0024	**0.0088 J**
	1/17/2012	N	< 0.043	< 0.095	< 0.095	< 0.095	< 0.095	**0.80**	< 0.095	< 0.095	< 0.0053	< 0.0046	**0.14**	**0.00025 J**	**0.0051**	< 0.0012	**0.0025 J**	< 0.0050	< 0.0040	< 0.000091	**0.0065 J**	< 0.0064	< 0.00025	< 0.0024	**0.061**
MW-304	1/8/2014	N	< 0.050	< 0.10	**0.54**	**5.8**	< 0.050	**65**	**5.0**	**0.52**	< 0.0200	< 0.0500	**0.395**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	< 0.050	< 0.10	**0.62**	**6.6**	< 0.050	**280**	**5.7**	**0.54**	< 0.0200	< 0.0500	**0.407**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 20	< 20	< 20	< 20	< 20	**300**	< 20	< 20	< 0.020	< 0.020	**0.37**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 4.3	< 4.3	< 4.3	**8.4**	< 4.3	**430**	**7.2**	< 4.3	< 0.020	< 0.020	**0.38**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	< 0.048	< 0.11	**0.39**	**5.0**	< 0.11	**98**	**3.0**	**0.40**	< 0.0053	< 0.0046	**0.38**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-306D	1/7/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	**0.075**	< 0.0200	< 0.0500	**0.424**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	**0.060**	< 0.0200	< 0.0500	**0.785**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.69**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	**4.1**	< 0.23	< 0.23	< 0.020	< 0.020	**0.71**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.047	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.0053	< 0.0046	**0.61**	< 0.00020	< 0.0020	**0.0016 J**	**0.0023 J**	< 0.0050	< 0.0040	< 0.000091	**0.0029 J**	< 0.0064	< 0.00025	< 0.0024	**0.011 J**
MW-307D	1/7/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	**0.065**	< 0.0200	< 0.0500	**0.0751**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0638**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.29**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.044	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.0053	< 0.0046	**0.061**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0049 J**	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/16/2012	N	< 0.050	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	**0.068**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0059 J**	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-401D	1/13/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**0.69**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0626**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**0.95**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0546**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.055**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	**0.60**	< 0.20	< 0.20	< 0.020	< 0.020	**0.048**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	< 0.043	< 0.097	< 0.097	< 0.097	< 0.097	**2.9**	< 0.097	< 0.097	< 0.0053	< 0.0046	**0.054**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0025 J**	< 0.0087
MW-402D	1/7/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0874**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	**0.00042**	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0950**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.020	< 0.020	**0.10**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.083**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.046	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.0053	< 0.0046	**0.12**	< 0.00020	< 0.0020	**0.0012 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-404DR	1/13/2014	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**0.55**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.140**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	**1.1**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.174**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.012**	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.0233**
	1/9/2013	N	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.020	< 0.020	**0.15**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.19**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.020**
	1/19/2012	N	< 0.049	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	**0.16**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0029 J**	< 0.0087
MW-408D	1/8/2014	N	< 0.050	< 0.10	**0.23**	**2.0**	< 0.050	**0.57**	**5.3**	**0.16**	< 0.0200	< 0.0500	**0.575**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.050	< 0.10	**0.10**	**1.3**	< 0.050	< 0.50	**2.5**	**0.065**	< 0.0200	< 0.0500	**0.569**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.22	< 0.22	**0.23**	**2.7**	< 0.22	**0.27**	**5.8**	< 0.22	< 0.020	< 0.020	**0.56**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.038**
	7/25/2012	N	< 1.9	< 1.9	< 1.9	**2.2**	< 1.9	< 1.9	**5.1**	< 1.9	< 0.020	< 0.020	**0.58**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	< 0.050	< 0.11	< 0.11	< 0.11	< 0.11	**0.57**	< 0.11	< 0.11	< 0.0053	**0.045**	**0.26**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	**0.0063 J**	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087

Table 3-1
Groundwater Analytical Results for Galliard Formation Wells

Category			SVOCs								Inorganics														
Constituent			Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cyanide	Lead	Mercury	Nickel	Selenium	Thallium	Vanadium	Zinc
Type 1 RRS			0.2	0.3	1,000	1,000	0.4	20	10	1,000	0.006	0.01	2	0.004	0.005	0.1	1.3	0.2	0.015	0.002	0.1	0.05	0.002	0.2	2
Location ID	**Sample Date**	**Sample Type**	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-502D	1/14/2014	N	**1.1**	**0.13**	**4.1**	**38**	**0.49**	**4,900**	**38**	**6.3**	< 0.0200	< 0.0500	**0.671**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.012**	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/14/2014	DUP-06	**1.2**	**0.14**	**4.0**	**38**	**0.51**	**4,300**	**37**	**6.3**	< 0.0200	< 0.0500	**0.665**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.018**	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	N	**960**	**130**	**2,400**	**3,000**	**330**	**29,000**	**7,700**	**3,700**	< 0.020	< 0.020	**0.59**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.013**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/10/2013	DUP-05	**1,600**	< 22	**3,800**	**5,100**	**480**	**50,000**	**13,000**	**6,100**	< 0.020	< 0.020	**0.58**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.012**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 190	< 190	< 190	< 190	< 190	**4,100**	< 190	< 190	< 0.020	< 0.020	**0.68**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.011**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	DUP-06	< 190	< 190	< 190	< 190	< 190	**4,700**	< 190	< 190	< 0.020	< 0.020	**0.67**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	**28**	**4.5**	**53**	**92**	**12**	**6,300 D**	**170**	**68**	< 0.0053	< 0.0046	**0.66**	< 0.00020	< 0.0020	**0.0019 J**	< 0.0019	**0.0080 J**	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/25/2012	DUP-06	**2.6**	< 1.1	**7.9**	**63**	**1.3 J**	**7,700 D**	**65**	**9.7**	< 0.0053	< 0.0046	**0.71**	< 0.00020	< 0.0020	**0.0020 J**	< 0.0019	**0.010**	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-505D	1/8/2014	N	< 0.050	< 0.10	**1.1**	**9.5**	< 0.050	**840**	**8.1**	**1.2**	< 0.0200	< 0.0500	**0.373**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	< 0.050	< 0.10	**1.3**	**12**	< 0.050	**870**	**7.1**	**1.1**	< 0.0200	< 0.0500	**0.395**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**83**	< 2.0	< 2.0	< 0.020	< 0.020	**0.34**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 1.9	< 1.9	< 1.9	**5.3**	< 1.9	**49**	< 1.9	< 1.9	< 0.020	< 0.020	**0.32**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/24/2012	N	< 0.048	< 0.11	**0.92**	**13**	< 0.11	**15**	**2.7**	**0.87**	< 0.0053	< 0.0046	**0.23**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0046 J**	**0.022**
MW-600	1/9/2014	N	**0.66**	< 0.10	**3.2**	**39**	**0.21**	**7,700**	**36**	**3.8**	< 0.0200	< 0.0500	**0.197**	< 0.0100	< 0.0050	< 0.0100	**0.0351**	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	**0.288**
	7/11/2013	N	< 0.50	< 1.0	**1.0**	**12**	< 0.50	**2,500**	**9.8**	**1.2**	< 0.0200	< 0.0500	**0.0615**	< 0.0100	< 0.0050	< 0.0100	**0.0292**	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**1.53**
	7/11/2013	DUP-04	**0.26**	< 0.10	**1.2**	**16**	**0.065**	**2,900**	**9.6**	**1.4**	< 0.0200	< 0.0500	**0.0613**	< 0.0100	< 0.0050	< 0.0100	**0.0298**	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**1.59**
	1/10/2013	N	< 22	< 22	< 22	< 22	< 22	**5,700**	< 22	< 22	< 0.020	< 0.020	**0.097**	< 0.0040	< 0.0050	< 0.010	**0.021**	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.099**
	7/26/2012	N	< 190	< 190	< 190	< 190	< 190	**8,200**	< 190	< 190	< 0.020	< 0.020	**0.25**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	**0.015**	**0.15**
	1/25/2012	N	**3.0 D**	< 1.0 D	**9.5 D**	**41 D**	**1.4 JD**	**11,000 D**	**50 D**	**11 D**	< 0.0053	**0.0075 J**	**0.27**	**0.00060 J**	< 0.0020	< 0.0012	**0.0024 J**	< 0.0050	< 0.0040	< 0.000091	**0.0037 J**	< 0.0064	< 0.00025	**0.016**	**0.017 J**
MW-601	1/9/2014	N	< 0.050	< 0.10	**0.67**	**42.0**	< 0.050	**8,400**	**25.0**	**1.0**	< 0.0200	< 0.0500	**0.249**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.025**	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	**0.121**
	7/11/2013	N	< 0.50	< 1.0	< 1.0	**53.0**	< 0.50	**9,900**	**25.0**	**0.76**	< 0.0200	< 0.0500	**0.270**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.026**	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.0291**
	1/10/2013	N	< 19	< 19	< 19	**64.0**	< 19	**11,000**	**35**	< 19	< 0.020	< 0.020	**0.28**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.035**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.077**
	7/25/2012	N	< 210	< 210	< 210	< 210	< 210	**11,000**	< 210	< 210	< 0.020	< 0.020	**0.29**	< 0.0040	< 0.0050	< 0.010	< 0.020	**0.041**	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/19/2012	N	< 2.2	< 4.8	< 4.8	**63**	< 4.8	**770**	**38**	< 4.8	< 0.0053	**0.0096 J**	**0.30**	< 0.00020	< 0.0020	**0.0019 J**	< 0.0019	**0.048**	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0024 J**	< 0.0087
MW-602	1/7/2014	N	< 0.050	< 0.10	< 0.10	**0.69**	< 0.050	< 0.50	< 0.050	**0.080**	< 0.0200	< 0.0500	**0.583**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.040	< 0.0200	< 0.0200	< 0.0100	**0.0432**
	7/9/2013	N	< 0.050	< 0.10	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.137**	< 0.0100	< 0.0050	< 0.0100	**0.0117**	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.583**
	1/7/2013	N	< 0.22	< 0.22	< 0.22	**0.55**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.020	< 0.020	**0.38**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.40**
	7/23/2012	N	< 0.23	< 0.50	< 0.50	**1.6**	< 0.50	**65**	< 0.50	< 0.50	< 0.0053	< 0.0046	**0.40**	< 0.00020	< 0.0020	< 0.0012	**0.0049 J**	< 0.0050	< 0.0040	< 0.000091	**0.0024 J**	< 0.0064	< 0.00025	**0.0044 J**	**0.17**
	1/17/2012	N	< 0.046	< 0.10	**0.14 J**	**0.47**	< 0.10	**0.34**	< 0.10	**0.22**	< 0.0053	< 0.0046	**0.57**	< 0.00020	< 0.0020	**0.0031 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-603	1/7/2014	DNAPL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.040	--	--	--	--
	7/11/2013	N	< 0.050	< 0.10	**0.78**	**9.3**	< 0.050	**490**	**8.4**	**0.71**	< 0.0200	< 0.0500	**0.808**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 10	< 10	< 10	**29**	< 10	**1,000**	**22**	< 10	< 0.020	< 0.020	**0.67**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.021**
	7/26/2012	N	< 190	< 190	< 190	< 190	< 190	**1,100**	< 190	< 190	< 0.020	< 0.020	**0.74**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.46	< 1.0	< 1.0	**20**	< 1.0	**1,400 D**	**13**	< 1.0	< 0.0053	< 0.0046	**0.84**	< 0.00020	< 0.0020	**0.0016 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0024 J**	< 0.0087

Notes:
N = Normal sample
DUP = Duplicate sample
DNAPL - Well not sampled due to presence of Dense Non-Aqueous Phase Liquid in well
BOLD=Analyte was detected above laboratory detection limit
Analyte concentration exceeds the Type 1 RRS
Detection limit exceeds the Type 1 RRS
H = Sample was prepped or analyzed beyond specified holding time

Prepared By: TAN 7/17/2014
Checked By: ADB 7/18/2014

Table 3-2
Groundwater Analytical Results for Bedrock Wells

Category			VOCs								SVOCs									
Constituent			Acetone	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethylene	Xylenes, total	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
Type 1 RRS			4,000	5	4,000	700	5	1,000	5	10,000	2,000	10	10	0.1	0.2	0.2	10	10	0.2	0.3
Location ID	Sample Date	Sample Type	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-213	1/8/2014	N	< 2,500	6,000	< 250	1,300	< 250	800	< 250	1,300	52	< 1,000	3.1	0.058	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	N	< 50	7100	< 5.0	1,300	< 5.0	720	< 5.0	1,800	63	82	2.7	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 5,000	8,300	< 250	1,600	< 250	640	< 250	1,400	< 220	< 220	< 220	< 220	< 220	< 220	< 220	< 220	< 220	< 220
	7/25/2012	N	< 5,000	6,500	< 250	1,100	< 250	670	< 250	1,100	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210
	1/18/2012	N	< 250	5,100	< 30	1,000	< 50	710	< 6.5	950	67	170	4.1	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.043	< 0.096
MW-306BR	1/8/2014	N	< 50	500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	14	< 1.0	0.16	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	3.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/25/2012	N	< 100	68	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.2	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
	1/17/2012	N	< 50	720	< 6.0	4.6 J	< 10	< 3.3	< 1.3	5.6 J	5.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.056	< 0.10
MW-307BR*	1/10/2014	Vault	< 5,000	13,000	<500	2,400	< 500	<500	< 500	1,200	270	2.6	8.1	0.18	< 0.050	< 0.10	< 0.10	< 0.050	0.13	< 0.10
	1/10/2014	DUP-04	< 5,000	13,000	< 500	2,300	< 500	< 500	< 500	1,200	250	2.6	7.7	0.18	< 0.050	< 0.10	< 0.10	< 0.050	0.12	< 0.10
	8/13/2013	Vault	< 50	15,000	< 5.0	2,300	< 5.0	5.8	< 5.0	1,000	180	1.2	6.6	0.15	< 0.050	< 0.10	< 0.10	< 0.050	0.11	< 0.10
	8/13/2013	DUP-01	< 50	15,000	< 5.0	2,400	< 5.0	5.6	< 5.0	1,000	160	1.6	5.2	0.11	< 0.050	< 0.10	< 0.10	< 0.050	0.088	< 0.10
	1/9/2013	Vault	< 10,000	11,000	< 500	1,300	< 500	<500	< 500	540	200	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/9/2013	DUP-03	< 10,000	13,000	< 500	1,500	< 500	< 500	< 500	600	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	7/24/2012	N	< 20,000	12,000	< 1,000	2,000	< 1,000	< 1,000	< 1,000	1,100	260	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	7/24/2012	DUP-01	< 20,000	12,000	< 1,000	2,100	< 1,000	< 1,000	< 1,000	1,200	190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/23/2012	N	< 1000	12,000	< 120	1,900	< 200	120 J	< 26	1,300	250	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 4.9	< 11
	1/23/2012	DUP-05	< 1000	12,000	< 120	1,900	< 200	110 J	< 26	1,300	230	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 4.7	< 11
MW-308BR*	1/10/2014	Vault	100	4,500	< 5.0	630	< 5.0	810	< 5.0	680	140	84	35	21	17	12	6.2	4.1	20	1.4
	1/10/2014	DUP-05	86	4,500	< 5.0	620	< 5.0	810	< 5.0	660	160	72	21	10	7.1	5.3	2.7	1.9	7.6	0.6
	8/13/2013	Vault	< 50	5,700	< 5.0	650	< 5.0	1,100	< 5.0	840	90	82	26	17	14	13	3.9	4.5	15	1.0
	1/9/2013	Vault	< 5,000	5,100	< 250	550	< 250	530	< 250	700	240	250	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/9/2013	DUP-04	< 5,000	4,100	< 250	490	< 250	460	< 250	620	270	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200
	7/24/2012	N	< 5,000	5,500	< 250	700	< 250	760	< 250	710	190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	7/24/2012	DUP-02	< 10,000	5,600	< 500	700	< 500	750	< 500	700	190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/20/2012	N	< 250	5,100	< 30	660	< 50	810	7.9 J	710	180	79	32	22	19	23	7.3	< 1.1	20	< 1.1
	1/20/2012	DUP-04	< 250	5,300	< 30	690	< 50	830	< 6.5	710	140	63	31	27	19	25	8.4 J	< 5.7	22	< 5.7
MW-309BR	1/9/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	0.38 J	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.048	< 0.11
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.049	< 0.11
MW-310BR	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.047	< 0.10
MW-313	1/9/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/17/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.044	< 0.098
MW-315	1/9/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	1.0	< 1.0	< 0.050	0.16	0.18	0.14	0.15	0.15	0.15	0.16
	1/9/2014	DUP-03	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.96	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	1.1	< 1.0	< 0.050	0.22	0.53	0.97	0.66	0.35	0.47	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.9	< 1.9	< 1.9	6.0	15	25	16	8.7	15	3.8
	1/8/2013	DUP-01	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	1.9	0.56	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/25/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.73	0.24	< 0.21	< 0.21	< 0.21	0.29	< 0.21	< 0.21	< 0.21	< 0.21
	7/25/2012	DUP-03	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.77	< 0.21	< 0.21	< 0.21	< 0.21	0.25	< 0.21	< 0.21	< 0.21	< 0.21
	1/18/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	1.5	< 0.11	< 0.11	0.51	0.76	1.9	1.2	1.7	0.84	< 0.11
	1/18/2012	DUP-02	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	1.7	0.52	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.048	< 0.11
MW-318	1/27/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.8	< 1.0	0.055	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	3,300	< 5.0	11	< 5.0	< 5.0	< 5.0	35	< 0.50	< 1.0	0.73	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	DUP-03	< 50	3,300	< 5.0	9.4	< 5.0	< 5.0	< 5.0	31	< 0.50	< 1.0	0.76	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 500	670	< 25	< 25	< 25	< 25	< 25	< 25	11	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	7/24/2012	N	< 5,000	3,700	< 250	< 250	< 250	< 250	< 250	< 250	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210
	2/6/2012	N	< 50	1,700	< 6.0	8.6 J	< 10	4.7 J	< 1.3	13 J	28	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 4.5	< 9.9
MW-319	1/7/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	0.075	0.25	0.16	0.33	0.22	0.19	0.27
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.043	< 0.096
	1/18/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.048	< 0.11
MW-320	1/6/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	0.053	< 0.10	0.12	0.066	< 0.050	0.13
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	0.051	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.043	< 0.095
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	0.12 J	0.18 J	< 0.11	0.15 J	0.38	0.23 B	< 0.11
MW-321	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	N	< 50	330	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	13	< 1.0	0.26	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	DUP-01	< 50	360	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	12	< 1.0	0.26	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 100	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.19	0.82	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/25/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.29	0.20	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/24/2012	N	< 5.0	12	0.67 J	1.6 J	< 1.0	0.40 J	< 0.13	0.44 J	43 D	1.7	0.66	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.043	< 0.095
MW-324	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/25/2012	N	< 100	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.35	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/24/2012	N	< 50	1,200 JH	< 6.0	25 J	< 10	7.4 J	< 1.3	29 J	0.24	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.043	< 0.095
MW-325	1/6/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/23/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.043	< 0.096
	1/16/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.045	< 0.10

Table 3-2
Groundwater Analytical Results for Bedrock Wells

Category			VOCs								SVOCs									
Constituent			Acetone	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Trichloroethylene	Xylenes, total	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene
Type 1 RRS			4,000	5	4,000	700	5	1,000	5	10,000	2,000	10	10	0.1	0.2	0.2	10	10	0.2	0.3
Location ID	Sample Date	Sample Type	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-500BR	1/8/2014	N	< 5,000	10,000	<500	1,000	<500	<500	< 500	670	71	2.2	1.1	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/9/2013	N	< 50	9,200	< 5.0	420	< 5.0	11	< 5.0	450	30	1.7	0.082	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 10,000	9,700	< 500	820	< 500	< 500	< 500	560	42	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19
	7/26/2012	N	< 5,000	14,000	< 250	1,600	< 250	< 250	< 250	1,100	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210	< 210
	1/18/2012	N	< 250	11,000	< 30	1,000	< 50	24 J	< 6.5	790	110	2.3	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.046	< 0.10
MW-503BR	1/13/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	180	< 5.0	18	< 5.0	77	< 5.0	26	< 0.50	< 1.0	0.053	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 200	300	< 10	44	< 10	< 10	< 10	22	2.8	0.39	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/26/2012	N	< 100	770 D	< 5.0	36	< 5.0	230	< 5.0	88	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	1/19/2012	N	13 J	20	< 0.60	2.2 J	< 1.0	8.7	0.22 J	3.4 J	0.22	0.20	< 0.96	0.098 J	0.11 J	0.15 J	0.097 J	< 0.096	0.075 J	< 0.096
MW-504BR	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 100	160	< 5.0	22	< 5.0	49	< 5.0	23	0.38	0.31	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/26/2012	N	< 100	51	< 5.0	8.0	< 5.0	16	< 5.0	8.4	0.24	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
	1/19/2012	N	< 5.0	300	< 0.60	41	< 1.0	86	< 0.13	45	1.6 J	1.2 J	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96	< 0.46	< 0.96
MW-506BR	1/8/2014	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/10/2013	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/26/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	22	< 5.0	1.5	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/25/2012	N	< 5.0	0.29 J	< 0.60	< 0.11	< 1.0	< 0.33	25	0.24 J	5.6	< 0.097	< 0.097	0.52	0.51	0.71*	0.50	0.71	0.61	0.66
MW-507BR	1/13/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/26/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/19/2012	N	< 5.0	< 0.25	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.049	< 0.11
MW-508BR	1/14/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/10/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/8/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	0.31	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/25/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	1/19/2012	N	< 5.0	0.34 J	< 0.60	< 0.11	< 1.0	< 0.33	< 0.13	< 0.20	< 0.10	0.34	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.046	< 0.10
MW-509BR	1/13/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	2,800	< 5.0	440	< 5.0	78	< 5.0	150	< 50	2.8	0.86	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 2,000	2,600	< 100	310	< 100	600	< 100	230	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	7/25/2012	N	< 2,000	1,100	< 100	120	< 100	210	< 100	< 100	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	1/19/2012	N	< 50	3,500	< 6.0	360	< 10	830	< 1.3	300	42 D	49 D	4.0 JD	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 0.96	< 2.1
MW-510BR	1/9/2014	N	< 50	32	< 5.0	47	< 5.0	52	< 5.0	66	4.8	< 1.0	0.78	0.12	0.07	< 0.10	<0.10	< 0.050	0.081	< 0.10
	7/11/2013	N	< 2,500	22,000	< 250	1,200	< 250	10,000	< 250	2,700	53	< 100	5.8	0.76	0.52	0.42	0.18	0.16	0.68	< 0.10
	7/11/2013	DUP-05	< 2,500	6,300	< 250	310	< 250	2,900	< 250	690	15	5.1	3.0	1.2	1.1	0.89	0.58	0.36	1.0	0.10
	1/10/2013	N	< 500	370	< 25	160	< 25	350	< 25	230	21	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19
	7/24/2012	N	< 10,000	7,800	< 500	1,200	< 500	4,700	< 500	1,500	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190	< 190
	1/23/2012	N	< 100	5,400	< 12	590	< 20	2,600	< 2.6	930	39	110	< 11	< 11	< 11	< 11	< 11	< 11	< 5.1	< 11
MW-511BR	1/9/2014	N	< 50	2,500	< 5.0	180	< 5.0	850	< 5.0	250	3.5	1.1	0.42	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	85	1,200	< 5.0	150	< 5.0	410	< 5.0	190	5.2	1.3	0.35	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 2,000	3,400	< 100	200	< 100	1,100	< 100	280	5	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
	7/26/2012	N	< 2,000	1,900	< 100	120	< 100	630	< 100	160	4.6	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
	1/25/2012	N	< 250	4,000	< 30	220 J	< 50	1,200	< 6.5	350	8.4	2.6	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 0.47	< 1.0
MW-512BR	1/14/2014	N	< 50	5.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	0.95	< 1.0	0.072	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	85	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	1.7	< 1.0	0.066	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/10/2013	N	< 100	150	< 5.0	8.4	< 5.0	< 5.0	< 5.0	< 5.0	1.2	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	7/26/2012	N	< 500	1,300 D	< 25	< 25	< 25	< 25	< 25	< 25	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19	< 19
	1/25/2012	N	< 5.0	40.0	< 0.60	8.4	< 1.0	< 0.33	< 0.13	1.4 J	2.4	0.16 J	0.11 J	< 0.11	< 0.11	< 0.11*	< 0.11	< 0.11	< 0.049	< 0.11
MW-513BR	1/8/2014	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.50	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	7/11/2013	N	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.4	< 1.0	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.050	< 0.050	< 0.10
	1/9/2013	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	7/24/2012	N	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.9	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	2/6/2012	N	< 5.0	2.1 J	< 0.60	0.25 J	< 1.0	< 0.33	0.31 J	0.33 J	6.9	0.16 J	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.049	< 0.11

Table 3-2
Groundwater Analytical Results for Bedrock Wells

Category			SVOCs						Inorganics														
Constituent			Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cyanide	Lead	Mercury	Nickel	Selenium	Thallium	Vanadium	Zinc
Type 1 RRS			1,000	1,000	0.4	20	10	1,000	0.006	0.01	2	0.004	0.005	0.1	1.3	0.2	0.015	0.002	0.1	0.05	0.002	0.2	2
Location ID	Sample Date	Sample Type	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-213	1/8/2014	N	0.77	15	< 0.050	6,400	23	0.75	< 0.0200	< 0.0500	0.846	< 0.0100	< 0.0050	< 0.0100	< 0.0100	0.016	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	0.59	23	< 0.050	6,700	22	0.57	< 0.0200	< 0.0500	0.912	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 220	< 220	< 220	5,900	< 220	< 220	< 0.020	< 0.020	0.900	< 0.0040	< 0.0050	< 0.010	< 0.020	0.015	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 210	< 210	< 210	6,000	< 210	< 210	< 0.020	< 0.020	0.96	< 0.0040	< 0.0050	< 0.010	< 0.020	0.021	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	1.1 J	20	< 0.096	1600 D	34	1.1 J	< 0.0053	< 0.0046	0.87	< 0.00020	< 0.0020	< 0.0012	< 0.0019	0.017	< 0.0040	< 0.000091	0.0024 J	< 0.0064	< 0.00025	0.0024 J	0.011 J
MW-306BR	1/8/2014	N	< 0.10	1.7	< 0.050	320	1.1	0.058	< 0.0200	< 0.0500	0.474	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0436	< 0.0100	0.0257	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0217
	1/9/2013	N	< 0.20	0.39	< 0.20	0.21	< 0.20	< 0.20	< 0.020	< 0.020	0.45	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 3.8	< 3.8	< 3.8	86	< 3.8	< 3.8	< 0.020	< 0.020	0.49	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.10	0.59	< 0.10	110	0.50	< 0.10	< 0.0053	< 0.0046	0.52	< 0.00020	< 0.0020	< 0.0012	< 0.0019	0.011	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-307BR*	1/10/2014	Vault	3.6	55	< 0.050	9,600	57	3.7	< 0.0200	< 0.0500	0.893	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0897
	1/10/2014	DUP-04	3.5	54	< 0.050	8,400	53	3.6	< 0.0200	< 0.0500	0.888	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0906
	8/13/2013	Vault	3.3	37	< 0.050	6,100	37	3.3	< 0.0200	< 0.0500	0.905	< 0.0100	< 0.0050	< 0.0100	< 0.0100	--	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0264
	8/13/2013	DUP-01	2.6	33	< 0.050	5,000	32	2.8	< 0.0200	< 0.0500	0.954	< 0.0100	< 0.0050	< 0.0100	< 0.0100	--	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.117
	1/9/2013	Vault	< 190	< 190	< 190	4,100	< 190	< 190	< 0.020	< 0.020	0.87	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	0.064	< 0.020	< 0.0010	< 0.010	0.11
	1/9/2013	DUP-03	< 190	< 190	< 190	3,800	< 190	< 190	< 0.020	< 0.020	0.8	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	0.061	< 0.020	< 0.0010	< 0.010	0.11
	7/24/2012	N	< 190	< 190	< 190	7,500	< 190	< 190	< 0.020	< 0.020	0.89	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.050
	7/24/2012	DUP-01	< 190	< 190	< 190	6,400	< 190	< 190	< 0.020	< 0.020	0.87	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.057
	1/23/2012	N	< 11	57	< 11	10,000 D	57	< 11	< 0.0053	< 0.0046	0.92	0.00029 J	< 0.0020	< 0.0012	0.0052 J	< 0.0050	0.0051 J	< 0.000091	0.014 J	< 0.0064	< 0.00025	< 0.0024	0.13
	1/23/2012	DUP-05	< 11	53	< 11	8,700 D	52	< 11	0.0057 J	< 0.0046	0.96	0.00029 J	< 0.0020	< 0.0012	0.0043 J	< 0.0050	< 0.0040	< 0.000091	0.010 J	< 0.0064	< 0.00025	< 0.0024	0.079
MW-308BR*	1/10/2014	Vault	44	64	5.2	5,200	160	57	< 0.0200	< 0.0500	0.549	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.121
	1/10/2014	DUP-05	23	56	2.3	5,100	110	29	< 0.0200	< 0.0500	0.531	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.122
	8/13/2013	Vault	38	60	3.7	3,900	140	44	< 0.0200	< 0.0500	0.576	< 0.0100	< 0.0050	< 0.0100	< 0.0100	--	< 0.0100	< 0.00020	0.0390	< 0.0200	< 0.0200	< 0.0100	0.0803
	1/9/2013	Vault	270	260	< 190	5,200	760	400	< 0.020	< 0.020	0.55	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	0.92	< 0.020	< 0.0010	< 0.010	0.091
	1/9/2013	DUP-04	290	210	< 200	4,400	670	430	< 0.020	< 0.020	0.55	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	0.93	< 0.020	< 0.0010	< 0.010	0.089
	7/24/2012	N	< 190	< 190	< 190	4,400	< 190	< 190	< 0.020	< 0.020	0.54	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.050
	7/24/2012	DUP-02	< 190	< 190	< 190	4,200	< 190	< 190	< 0.020	< 0.020	0.54	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.050
	1/20/2012	N	49	83	6.2	4,400	160	62	< 0.0053	< 0.0046	0.56	0.00020 J	< 0.0020	< 0.0012	0.020	< 0.0050	0.013	< 0.000091	0.53	< 0.0064	< 0.00025	< 0.0024	0.97
	1/20/2012	DUP-04	49	62	7.1 J	4,000	150	60	< 0.0053	0.0053 J	0.54	< 0.00020	< 0.0020	0.0013 J	0.011 J	< 0.0050	0.011	< 0.000091	0.97	< 0.0064	< 0.00025	< 0.0024	1.1
MW-309BR	1/9/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	0.055	< 0.050	< 0.0200	< 0.0500	0.245	< 0.0100	< 0.0050	< 0.0100	0.0105	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.148	< 0.0100	0.0113	< 0.0100	0.0759	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	0.2	< 0.0040	0.0056	< 0.010	0.030	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.021
	7/23/2012	N	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	0.47	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/17/2012	N	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	0.20	< 0.00020	< 0.0020	< 0.0012	0.028	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	0.0035 J	< 0.0087
MW-310BR	1/7/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.261	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.209	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.020	< 0.020	0.23	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.19	< 0.19	< 0.19	0.25	< 0.19	< 0.19	< 0.020	< 0.020	0.2	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.0053	< 0.0046	0.21	< 0.00020	< 0.0020	< 0.0012	0.0026 J	< 0.0050	< 0.0040	< 0.000091	0.0030 J	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-313	1/9/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.151	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0501
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.145	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	0.18	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.19	< 0.19	< 0.19	2.3	< 0.19	< 0.19	< 0.020	< 0.020	0.14	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/17/2012	N	< 0.098	< 0.098	< 0.098	0.89	< 0.098	< 0.098	< 0.0053	< 0.0046	0.12	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	0.0053 J	< 0.0087
MW-315	1/9/2014	N	<0.10	< 0.10	0.16	0.61	<0.050	0.091	< 0.0200	< 0.0500	0.473	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2014	DUP-03	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.480	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	0.54	< 0.10	0.51	2.9	0.094	0.41	< 0.0200	< 0.0500	0.487	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	14	< 1.9	15	< 1.9	< 1.9	9.0	< 0.020	< 0.020	0.49	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/8/2013	DUP-01	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	0.48	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.020	< 0.020	0.52	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	0.024
	7/25/2012	DUP-03	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.020	< 0.020	0.53	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/18/2012	N	0.82	< 0.11	1	0.41	< 0.11	0.69	< 0.0053	< 0.0046	0.53	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/18/2012	DUP-02	< 0.11	< 0.11	< 0.11	2.5	< 0.11	< 0.11	< 0.0053	< 0.0046	0.54	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-318	1/27/2014	N	<0.10	0.48	< 0.050	7.3	0.36	0.050	< 0.0200	< 0.0500	0.289	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	0.32	4.5	< 0.050	820	4.0	0.30	< 0.0200	< 0.0500	0.556	< 0.0100	< 0.0050	< 0.0100	< 0.0100	0.011	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0203
	7/11/2013	DUP-03	0.34	4.6	< 0.050	820	4.1	0.33	< 0.0200	< 0.0500	0.560	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 2.0	< 2.0	< 2.0	160	< 2.0	< 2.0	< 0.020	< 0.020	0.3	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 210	< 210	< 210	880	< 210	< 210	< 0.020	< 0.020	0.54	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	2/6/2012	N	< 9.9	< 9.9	< 9.9	550	< 9.9	< 9.9	0.0063 JB	< 0.0046	0.72	0.00031 J	< 0.0020	0.0030 JB	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	0.0040 J	0.022
MW-319	1/7/2014	N	0.10	< 0.10	0.29	< 0.50	< 0.050	0.085	< 0.0200	< 0.0500	0.692	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.668	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	0.93	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0053	< 0.0046	0.73	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	0.0023 J	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/18/2012	N	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	0.28	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	0.0043 J	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	0.0094 J
MW-320	1/6/2014	N	< 0.10	< 0.10	0.090	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.264	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	0.12	< 0.10	< 0.050	< 0.50	< 0.050	81	< 0.0200	< 0.0500	0.267	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	0.096	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0053	< 0.0046	0.26	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
	1/16/2012	N	0.43	< 0.11	0.15 J	< 0.11	0.11 J	0.30	< 0.0053	< 0.0046	0.29	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-321	1/8/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0662	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	0.12	2.2	< 0.050	240	1.8	0.096	< 0.0200	< 0.0500	0.244	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	DUP-01	0.11	2.1	< 0.050	150	1.7	0.100	< 0.0200	< 0.0500	0.237	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 0.19	0.94	< 0.19	13	1.1	< 0.19	< 0.020	< 0.020	0.14	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 0.19	0.29	< 0.19	3.9	0.48	< 0.19	< 0.020	< 0.020	0.094	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/24/2012	N	0.28	7.2	< 0.095	1,100 D	5.8	0.29	< 0.0053	< 0.0046	0.30	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-324	1/8/2014	N	< 0.10	< 0.10	< 0.050	0.98	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0674	< 0.0100	< 0.0050	< 0.0100	0.0161	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0693	< 0.0100	0.0066	< 0.0100	0.0192	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	0.0337
	1/9/2013	N	< 0.19	< 0.19	< 0.19	0.70	< 0.19	< 0.19	< 0.020	< 0.020	0.061	< 0.0040	0.0073	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 0.19	< 0.19	< 0.19	3.9	< 0.19	< 0.19	< 0.020	< 0.020	0.089	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/24/2012	N	< 0.095	< 0.095	< 0.095	6.1	0.15 J	< 0.095	< 0.0053	< 0.0046	0.081	< 0.00020	< 0.0020	< 0.0012	0.0040 J	< 0.0050	< 0.0040	< 0.000091	0.0028 J	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-325	1/6/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0326	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/9/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	0.0284	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	0.026	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/23/2012	N	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.0053	< 0.0046	0.022	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	0.0029 J	< 0.0087
	1/16/2012	N	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.0053	0.0047 J	0.25	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	0.0034 J	< 0.0087

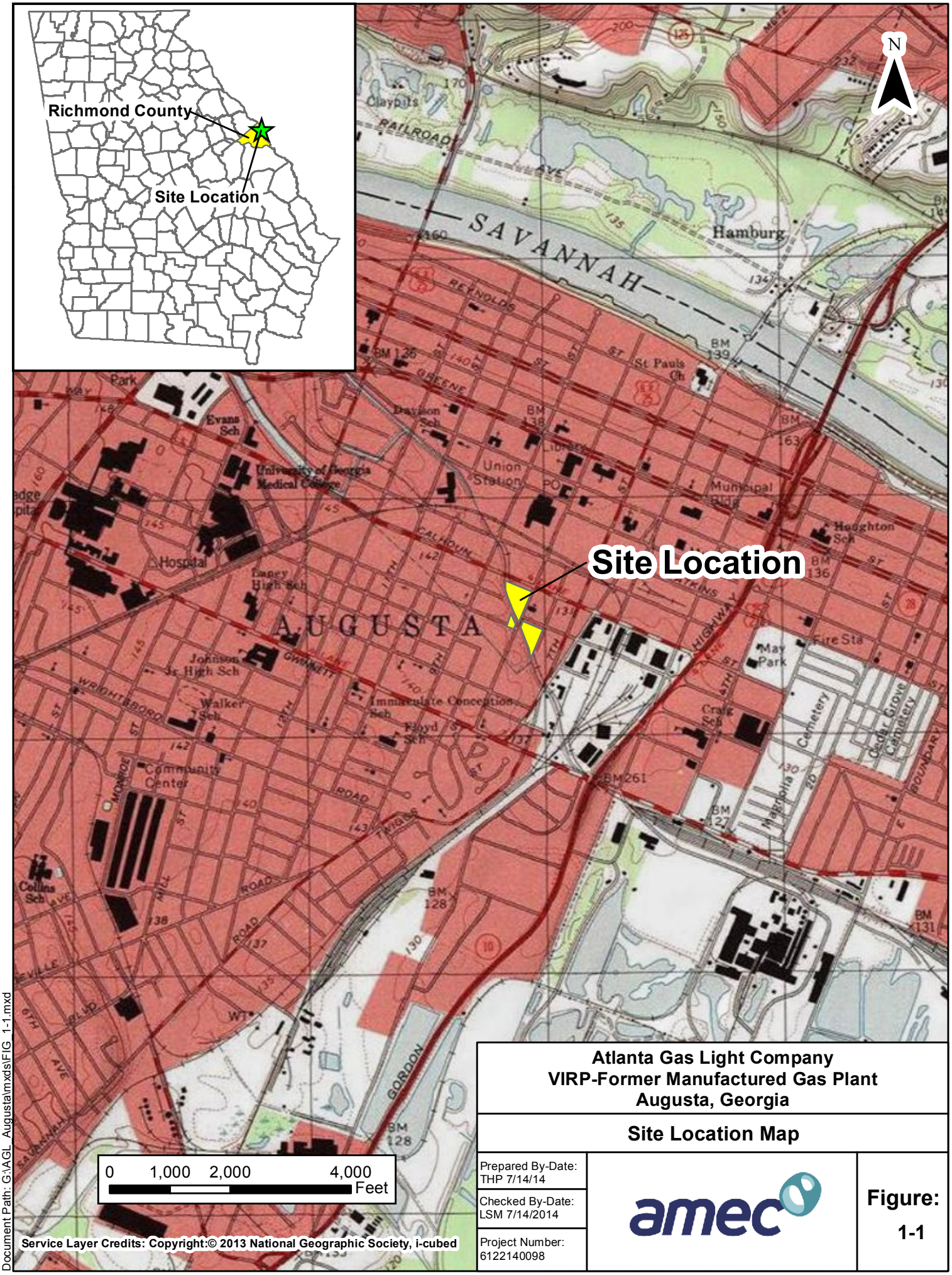
Table 3-2
Groundwater Analytical Results for Bedrock Wells

Category			SVOCs						Inorganics														
Constituent			Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cyanide	Lead	Mercury	Nickel	Selenium	Thallium	Vanadium	Zinc
Type 1 RRS			1,000	1,000	0.4	20	10	1,000	0.006	0.01	2	0.004	0.005	0.1	1.3	0.2	0.015	0.002	0.1	0.05	0.002	0.2	2
Location ID	Sample Date	Sample Type	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-500BR	1/8/2014	N	**0.31**	**9.4**	< 0.050	**2,500**	**6.6**	**0.31**	< 0.0200	< 0.0500	**0.441**	< 0.0100	**0.0096**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.161**
	7/9/2013	N	< 0.10	**1.6**	< 0.050	**460**	**0.067**	**0.093**	< 0.0200	< 0.0500	**0.475**	< 0.0100	**0.0108**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.111**
	1/10/2013	N	< 19	< 19	< 19	**770**	< 19	< 19	< 0.020	< 0.020	**0.45**	< 0.0040	**0.0081**	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.056**
	7/26/2012	N	< 210	< 210	< 210	**1,600**	< 210	< 210	< 0.020	< 0.020	**0.5**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.063**
	1/18/2012	N	**0.31**	**2.6**	< 0.10	**3,100**	**9.2**	**0.32**	< 0.0053	< 0.0046	**0.57**	< 0.00020	**0.0029 J**	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.0027 J**	< 0.0064	< 0.00025	< 0.0024	**0.063**
MW-503BR	1/13/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	<0.0200	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.0365**
	7/11/2013	N	< 0.10	**0.28**	< 0.050	**5.1**	**0.18**	< 0.050	< 0.0200	< 0.0500	**0.0214**	< 0.0100	**0.0103**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.0641**
	1/10/2013	N	< 0.20	**0.98**	< 0.20	**1.1**	**0.99**	< 0.20	< 0.020	< 0.020	**0.071**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.069**
	7/26/2012	N	< 20	< 20	< 20	**290 D**	< 20	< 20	< 0.020	< 0.020	**0.046**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/19/2012	N	**0.14 J**	**0.17 J**	< 0.096	**1.6**	**0.13 J**	**0.21**	< 0.0053	< 0.0046	**0.034**	< 0.00020	< 0.0020	< 0.0012	**0.0030 J**	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	**0.024**
MW-504BR	1/8/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	**0.056**	< 0.050	< 0.0200	< 0.0500	**0.105**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.248**
	7/10/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.126**	< 0.0100	< 0.0050	< 0.0100	**0.0110**	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.327**
	1/10/2013	N	< 0.20	**0.27**	< 0.20	**12**	**0.24**	< 0.20	< 0.020	< 0.020	**0.18**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	**0.00078**	< 0.040	< 0.020	< 0.0010	< 0.010	**0.029**
	7/26/2012	N	< 0.22	**0.22**	< 0.22	< 0.22	< 0.22	< 0.22	< 0.020	< 0.020	**0.19**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.027**
	1/19/2012	N	< 0.96	**1.2 J**	< 0.96	**91**	**1.0 J**	< 0.96	< 0.0053	< 0.0046	**0.26**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	**0.013**	< 0.0040	< 0.000091	**0.0026 J**	< 0.0064	< 0.00025	< 0.0024	**0.0097 J**
MW-506BR	1/8/2014	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/10/2013	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/10/2013	DESTROYED	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/26/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.45**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	**0.12 J**	< 0.097	**0.56**	**0.47**	< 0.097	**0.15 J**	< 0.0053	< 0.0046	**0.40**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.005	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0041 J**	< 0.0087
MW-507BR	1/13/2014	N	< 0.10	< 0.10	< 0.050	**1.4**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0697**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0798**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/10/2013	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.22**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.020	< 0.020	**0.2**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/19/2012	N	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0046	**0.078**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.005	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0028 J**	< 0.0087
MW-508BR	1/14/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.708**	< 0.0100	< 0.0050	**0.0179**	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/10/2013	N	< 0.10	< 0.10	< 0.050	**1.6**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.650**	< 0.0100	< 0.0050	**0.0101**	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/8/2013	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.68**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/25/2012	N	< 0.19	< 0.19	< 0.19	**0.59**	< 0.19	< 0.19	< 0.020	< 0.020	**0.72**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/19/2012	N	< 0.10	< 0.10	< 0.10	**0.24**	< 0.10	< 0.10	< 0.0053	< 0.0046	**0.68**	< 0.00020	< 0.0020	**0.0017 J**	**0.0021 J**	< 0.005	< 0.0040	< 0.000091	**0.0055 J**	< 0.0064	< 0.00025	**0.0086 J**	< 0.0087
MW-509BR	1/13/2014	N	< 0.10	< 0.10	< 0.050	**1.1**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.0262**	< 0.0100	**0.0058**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.258**
	7/11/2013	N	**0.52**	**5.1**	< 0.050	**830**	**6.3**	**0.49**	< 0.0200	< 0.0500	**0.157**	< 0.0100	**0.0091**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.183**
	1/10/2013	N	< 20	< 20	< 20	**610**	< 20	< 20	< 0.020	< 0.020	**0.26**	< 0.0040	**0.0053**	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.12**
	7/25/2012	N	< 20	< 20	< 20	**300**	< 20	< 20	< 0.020	< 0.020	**0.30**	< 0.0040	**0.0062**	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.11**
	1/19/2012	N	< 2.1	**31 D**	< 2.1	**2700 D**	**34 D**	< 2.1	< 0.0053	< 0.0046	**0.25**	< 0.00020	**0.0033 J**	< 0.0012	< 0.0019	**0.0054 J**	< 0.0040	< 0.000091	**0.0038 J**	< 0.0064	< 0.00025	< 0.0024	**0.072**
MW-510BR	1/9/2014	N	**0.81**	**4.7**	< 0.050	< 0.50	**0.96**	**0.89**	< 0.0200	< 0.0500	<0.0200	< 0.0100	**0.0089**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.165**
	7/11/2013	N	**4.0**	**42**	**0.15**	**2,400**	**47**	**4.4**	< 0.0200	< 0.0500	**0.326**	< 0.0100	**0.0063**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.124**
	7/11/2013	DUP-05	**3.1**	**14**	**0.45**	**0.65**	**17**	**3.9**	< 0.0200	< 0.0500	**0.13**	< 0.0100	**0.0298**	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	**0.573**
	1/10/2013	N	< 19	< 19	< 19	**680**	< 19	< 19	< 0.020	< 0.020	**0.049**	< 0.0040	**0.0062**	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.14**
	7/24/2012	N	< 190	< 190	< 190	**3,600**	< 190	< 190	< 0.020	< 0.020	**0.29**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	**0.028**
	1/23/2012	N	< 11	**39**	< 11	**4700 D**	**37**	< 11	< 0.0053	< 0.0046	**0.28**	< 0.00020	< 0.0020	< 0.0012	**0.0026 J**	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	**0.0030 J**	**0.015 J**
MW-511BR	1/9/2014	N	**0.15**	**2.3**	< 0.050	**390**	**2.5**	**0.15**	< 0.0200	< 0.0500	**0.256**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	**0.17**	**3.5**	< 0.050	**260**	**2.3**	**0.19**	< 0.0200	< 0.0500	**0.268**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	**0.014**	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/10/2013	N	< 2.1	**3.9**	< 2.1	**180**	**3.4**	< 2.1	< 0.020	< 0.020	**0.30**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 4.3	**4.4**	< 4.3	**120**	< 4.3	< 4.3	< 0.020	< 0.020	**0.33**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	< 1.0	**7**	< 1.0	**310 D**	**7.6**	< 1.0	< 0.0053	< 0.0046	**0.41**	< 0.00020	< 0.0020	**0.0012 J**	< 0.0019	< 0.0050	< 0.0040	< 0.000091	**0.013 J**	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-512BR	1/14/2014	N	< 0.10	**0.22**	< 0.050	< 0.50	**0.44**	**0.11**	< 0.0200	< 0.0500	**0.256**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	7/11/2013	N	< 0.10	**0.30**	< 0.050	**7.4**	**0.41**	**0.075**	< 0.0200	< 0.0500	**0.171**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/10/2013	N	< 0.19	< 0.19	< 0.19	**15**	< 0.19	< 0.19	< 0.020	< 0.020	**0.13**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/26/2012	N	< 19	< 19	< 19	**320**	< 19	< 19	< 0.020	< 0.020	**0.23**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	1/25/2012	N	**0.14 J**	**0.57**	< 0.11	**0.84**	**0.71**	**0.18 J**	< 0.0053	< 0.0046	**0.13**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	**0.0068 J**	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087
MW-513BR	1/8/2014	N	< 0.10	< 0.10	< 0.050	< 0.50	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.115**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	**0.0108**	< 0.0200
	7/11/2013	N	< 0.10	**0.19**	< 0.050	**1.9**	< 0.050	< 0.050	< 0.0200	< 0.0500	**0.749**	< 0.0100	< 0.0050	< 0.0100	< 0.0100	< 0.010	< 0.0100	< 0.00020	< 0.0200	< 0.0200	< 0.0200	< 0.0100	< 0.0200
	1/9/2013	N	< 0.20	< 0.20	< 0.20	**2.6**	< 0.20	< 0.20	< 0.020	< 0.020	**0.72**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	7/24/2012	N	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	< 0.020	**0.79**	< 0.0040	< 0.0050	< 0.010	< 0.020	< 0.010	< 0.010	< 0.00020	< 0.040	< 0.020	< 0.0010	< 0.010	< 0.020
	2/6/2012	N	< 0.11	**0.40**	< 0.11	**2.2**	< 0.11	**0.11 J**	< 0.0053	< 0.0046	**0.74**	< 0.00020	< 0.0020	< 0.0012	< 0.0019	< 0.0050	< 0.0040	< 0.000091	< 0.0023	< 0.0064	< 0.00025	< 0.0024	< 0.0087

Notes:
N = Normal sample
DUP = Duplicate sample
VAULT - Pump and Treat well sampled from manifold inside well vault
BOLD=Analyte was detected above laboratory detection lim
Analyte concentration exceeds the Type 1 RRS
Detection limit exceeds the Type 1
H = Sample was prepped or analyzed beyond specified holding time
*MW-307BR and MW-308BR were resampled due to anomalous results likely due to rainwater infiltration through manifest attached to well. Resampled results are shown in the table.

Prepared By: KPH 7/16/2014
Checked By: ADB 7/16/2014

FIGURES



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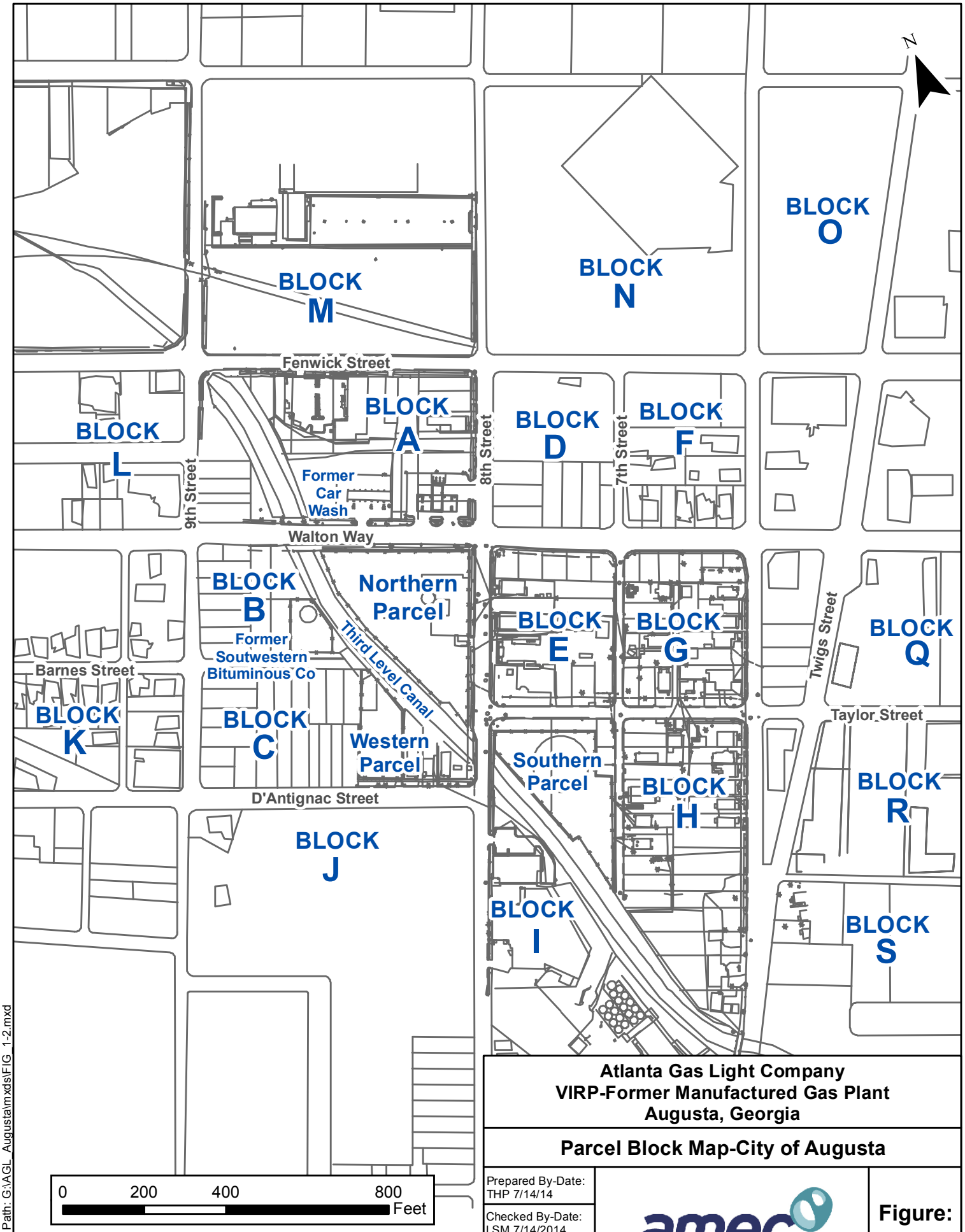
Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Site Location Map

Prepared By-Date: THP 7/14/14	amec	Figure: 1-1
Checked By-Date: LSM 7/14/2014		
Project Number: 6122140098		



Source: Environmental Cost Management 2012, Feasibility Study

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Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Parcel Block Map-City of Augusta

Prepared By-Date: THP 7/14/14

Checked By-Date: LSM 7/14/2014

Project Number: 6122140098

amec

Figure: 1-2

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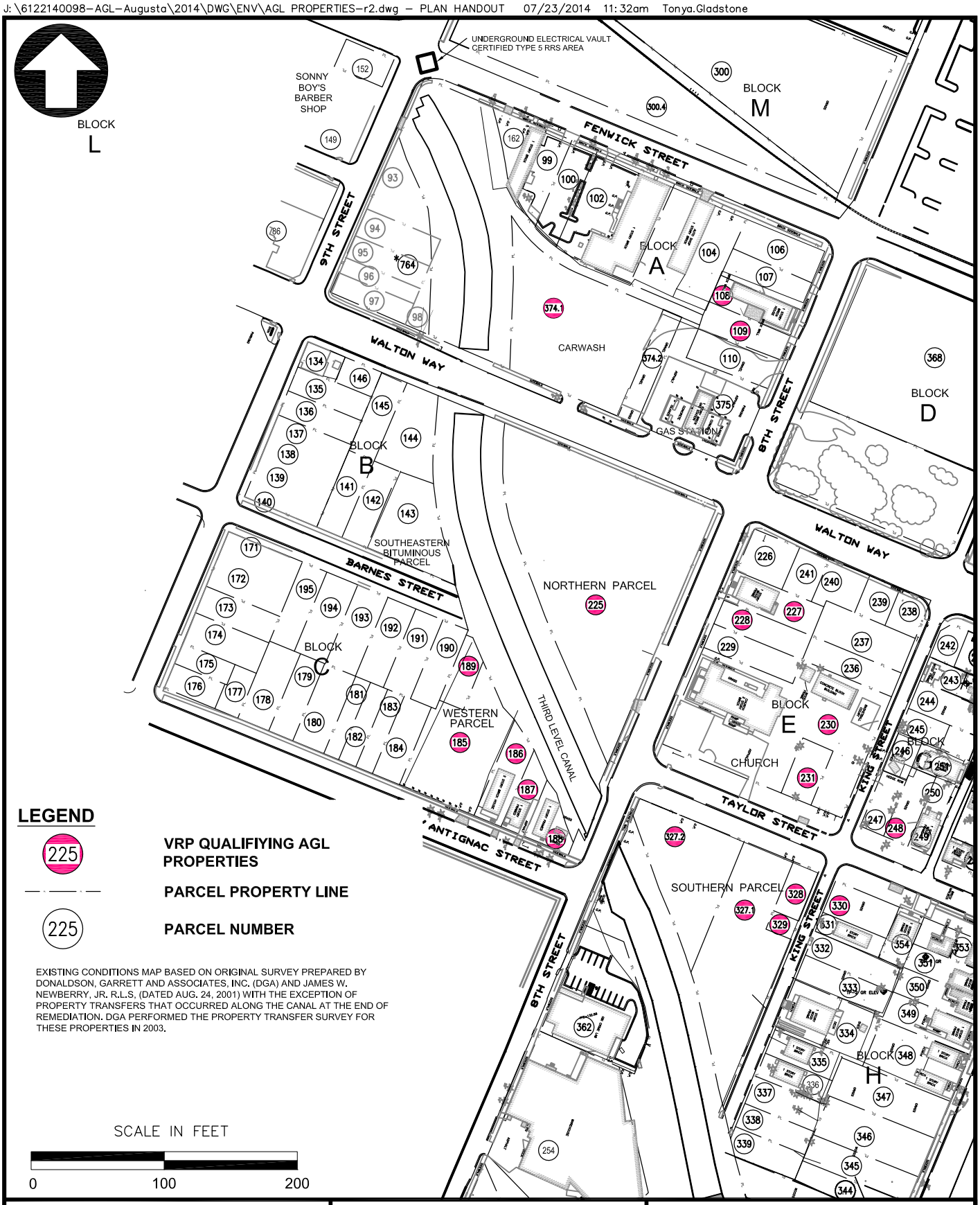


EXISTING CONDITIONS MAP BASED ON ORIGINAL SURVEY PREPARED BY DONALDSON, GARRETT AND ASSOCIATES, INC. (DGA) AND JAMES W. NEWBERRY, JR. R.L.S, (DATED AUG. 24, 2001) WITH THE EXCEPTION OF PROPERTY TRANSFERS THAT OCCURRED ALONG THE CANAL AT THE END OF REMEDIATION. DGA PERFORMED THE PROPERTY TRANSFER SURVEY FOR THESE PROPERTIES IN 2003.

ATLANTA GAS LIGHT COMPANY
VIRP-FORMER
MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

amec

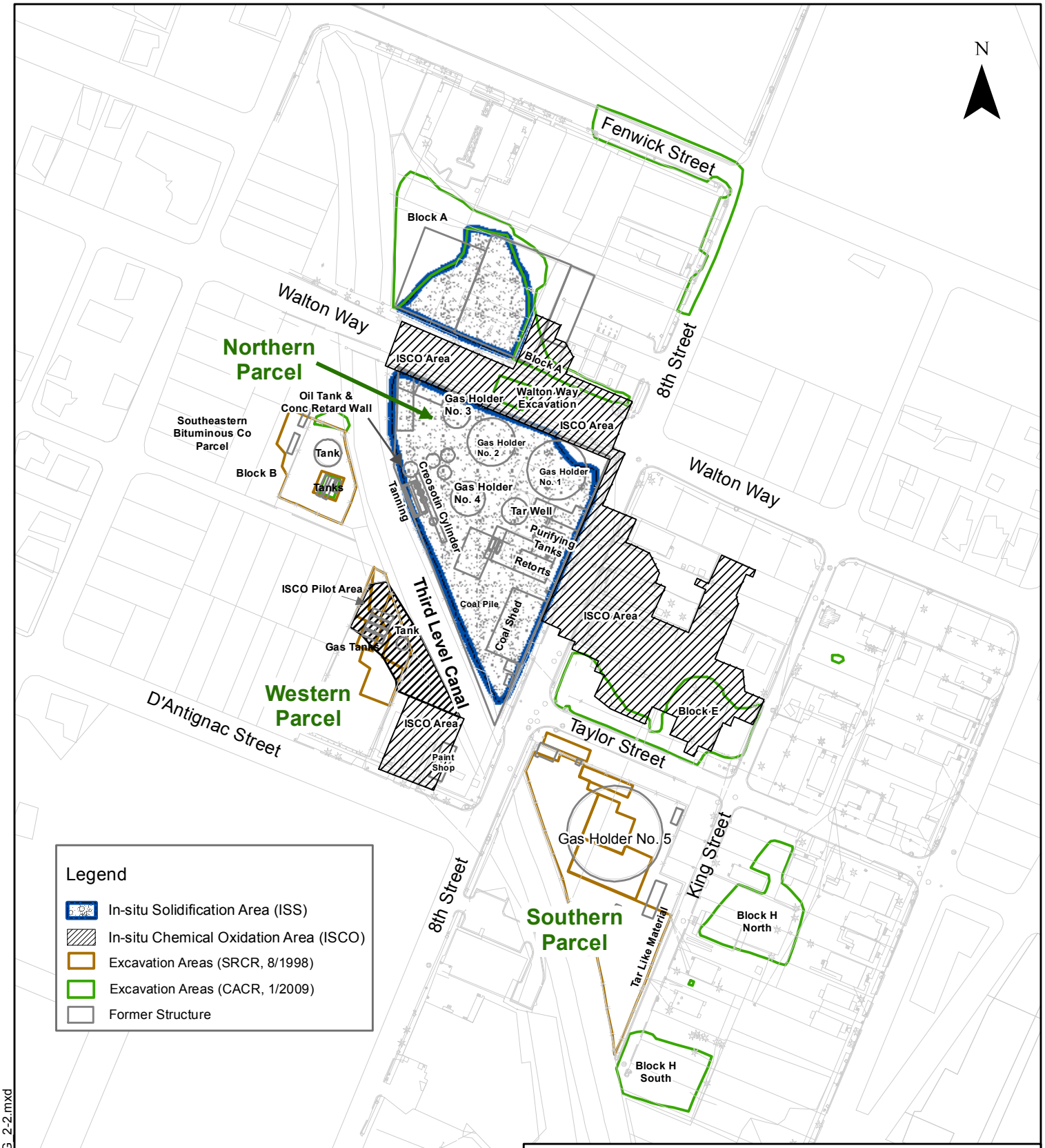
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

QUALIFYING VRP
AGL PROPERTIES

JOB NO. 6122-14-0098 FIGURE 2-1

PREPARED BY/DATE

CHECKED BY/DATE



Source:
Excavation of soils, impacts and BPLM in Western, Southern & Southeastern Bituminous Co (SEB)
parcels from Soil Removal Completion Report (SRCR), Retec, 8/1998.
Environmental Cost Management 2012, Feasibility Study

Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Historical MGP Facilities, ISS, Excavations and ISCO Areas

Prepared By-Date: THP 7/14/14

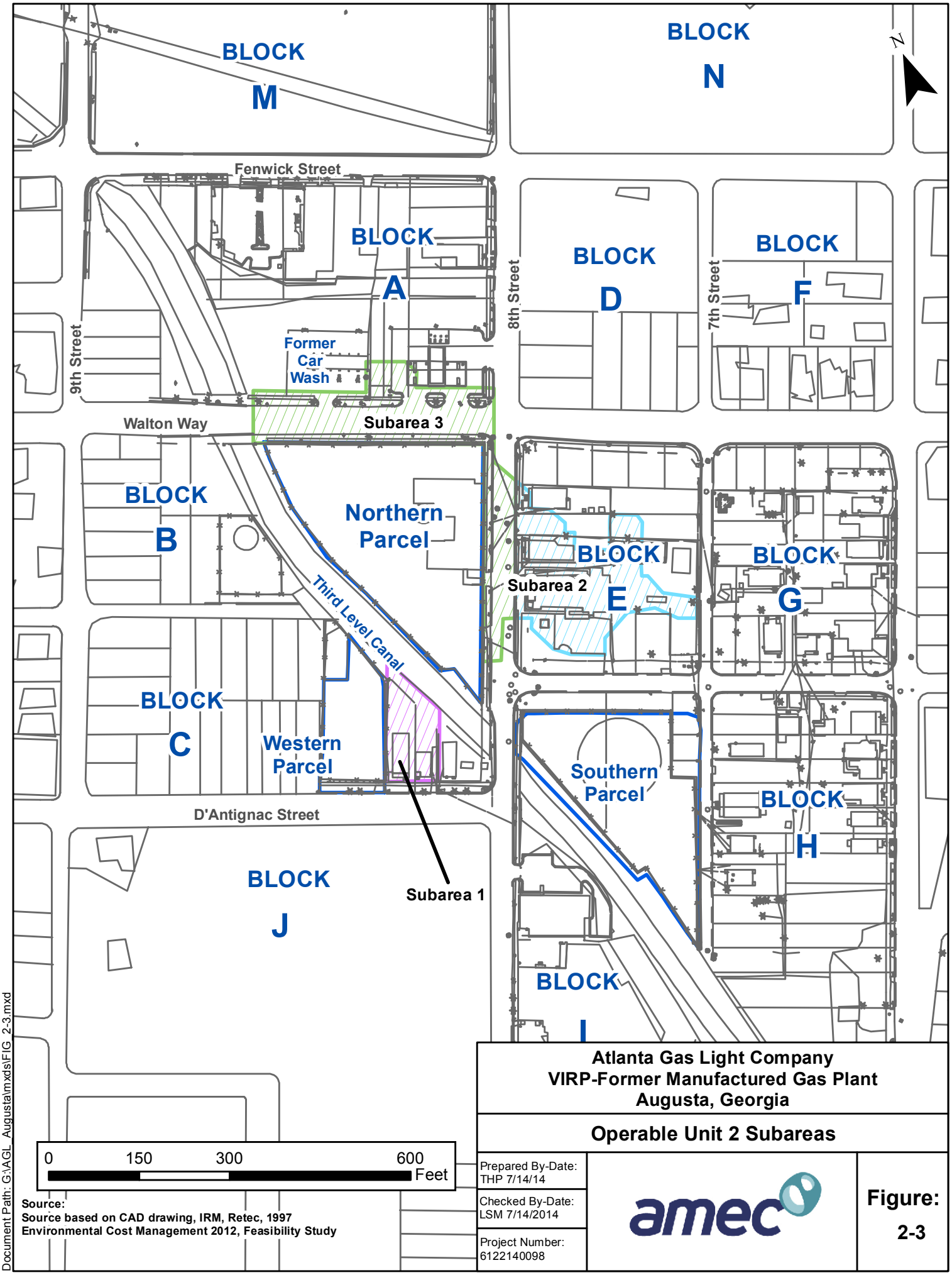
Checked By-Date: LSM 7/14/2014

Project Number: 6122140098

amec

Figure: 2-2

Document Path: G:\AGL_Augusta\mxds\FIG_2-2.mxd



Source:
Source based on CAD drawing, IRM, Retec, 1997
Environmental Cost Management 2012, Feasibility Study

Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Operable Unit 2 Subareas

Prepared By-Date: THP 7/14/14

Checked By-Date: LSM 7/14/2014

Project Number: 6122140098

amec

Figure: 2-3

Document Path: G:\AGL_Augusta\mxds\FIG_2-3.mxd

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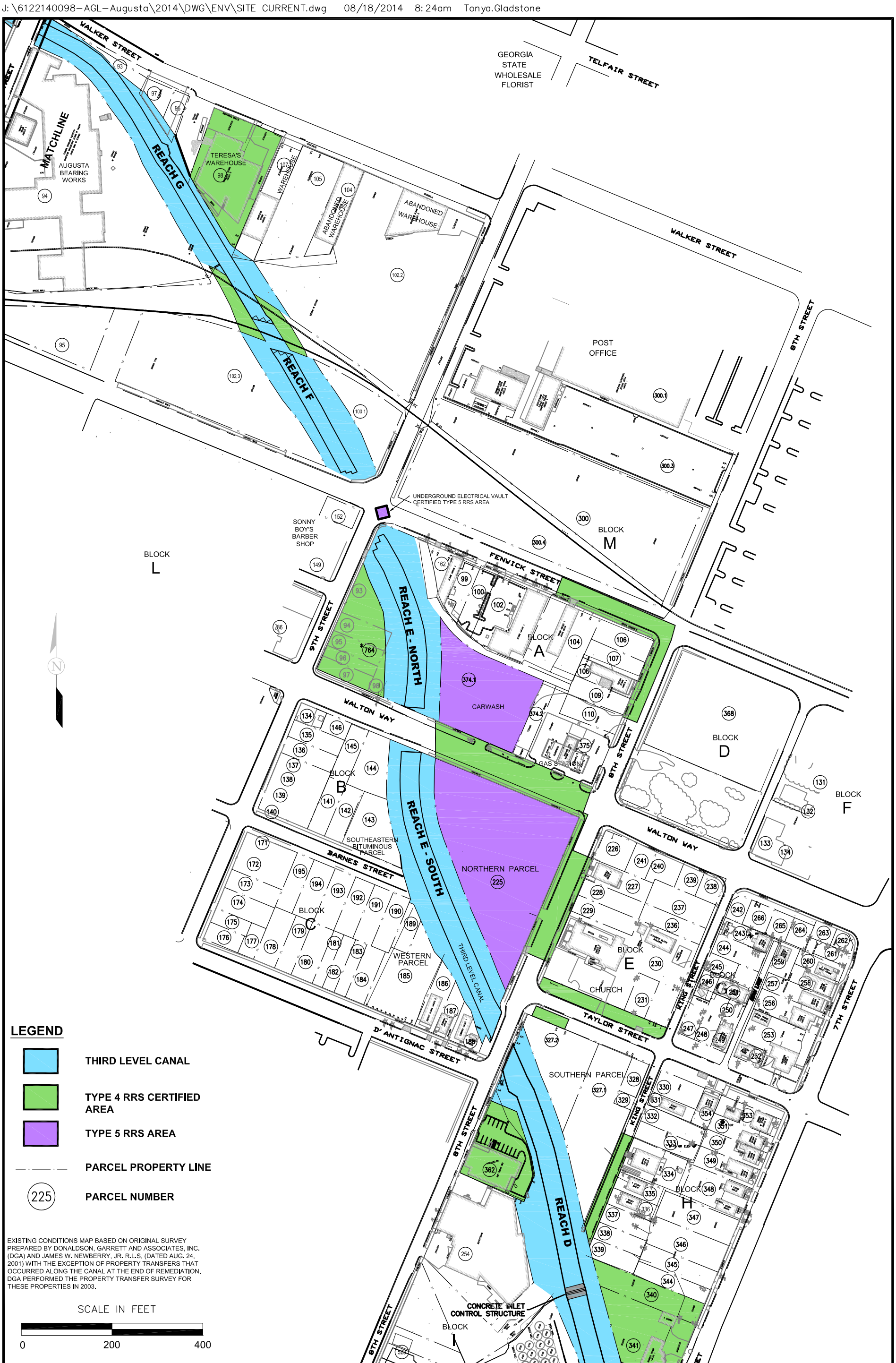

ATLANTA GAS LIGHT COMPANY
VIRP-FORMER
MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

amec

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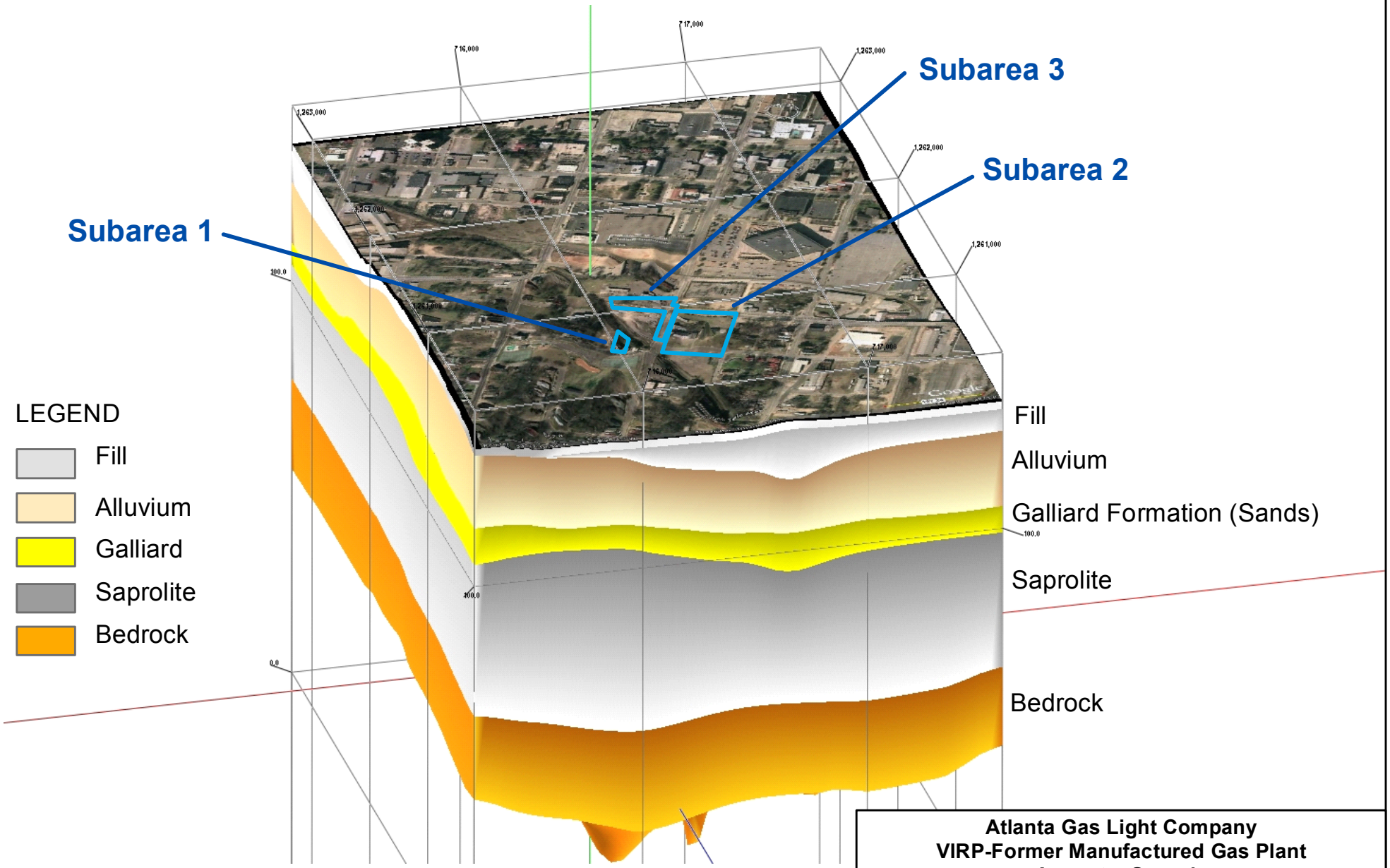
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

CURRENT SITE COMPLIANCE STATUS

JOB NO. **6122-14-0098** FIGURE **2-4**

PREPARED BY/DATE _____ CHECKED BY/DATE _____



Source:
Environmental Cost Management 2012, Feasibility Study

Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Stratigraphic Model

Prepared By-Date: THP 7/14/14	amec	**Figure: 3-1**
Checked By-Date: LSM 7/14/2014		
Project Number: 6122140098		

Document Path: G:\AGL_Augusta\mxds\FIG_3-1.mxd

J:\6122140098-AGL-Augusta\2014\DWG\ENV\EXTENT OF BFLM.dwg 07/22/2014 1:06pm Tonya.gladstone

ATLANTA GAS LIGHT COMPANY
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KENNESAW, GEORGIA 30144 (770) 421-3400

EXTENT OF BPLM
WITHIN SUBAREAS

JOB NO. **6122-14-0098** FIGURE **3-2**

PREPARED BY/DATE _____ CHECKED BY/DATE _____

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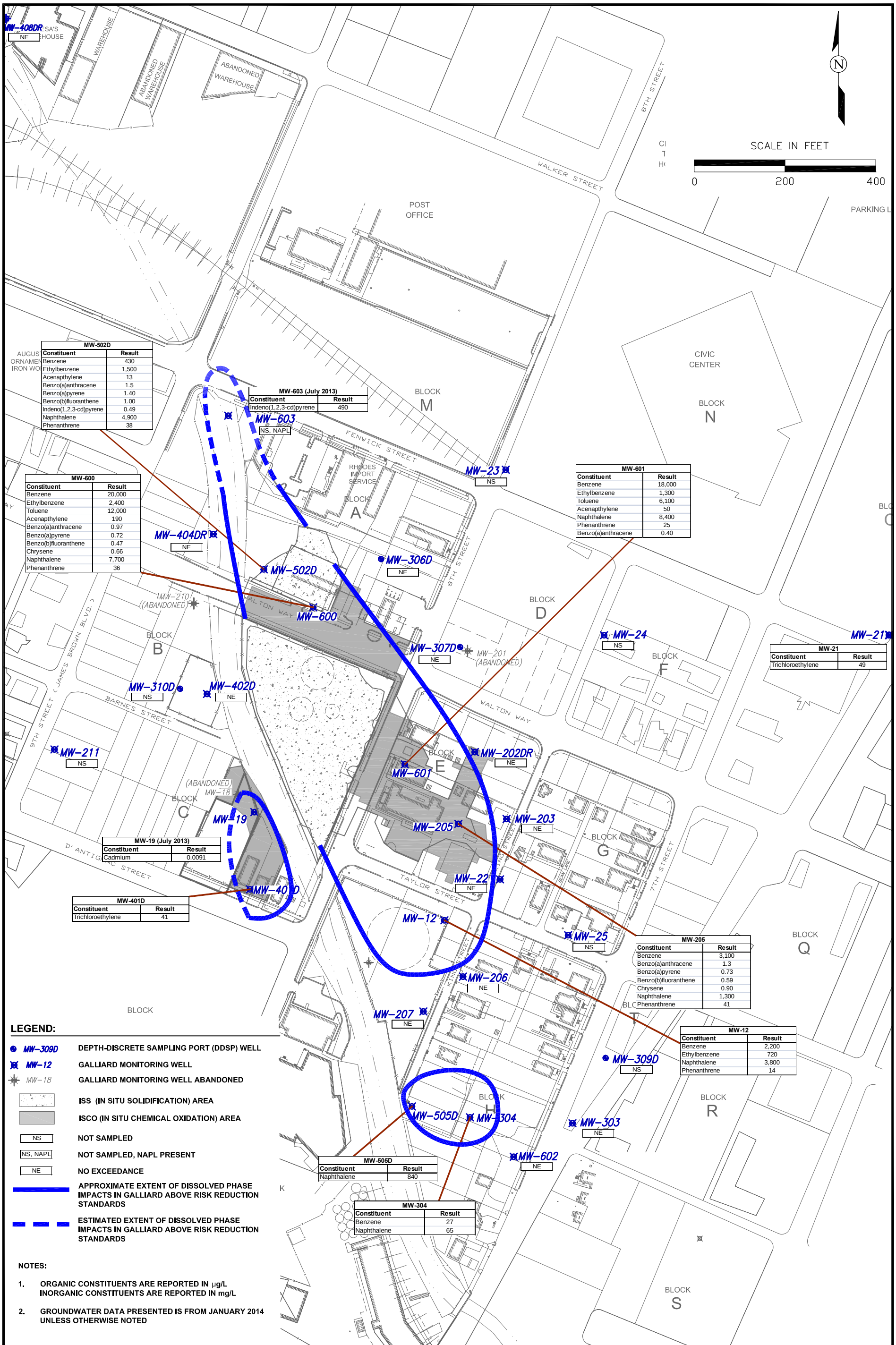

LEGEND:

- MW-309D — DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL
- MW-12 — GALLIARD MONITORING WELL
- MW-18 — GALLIARD MONITORING WELL ABANDONED
- ISS (IN SITU SOLIDIFICATION) AREA
- ISCO (IN SITU CHEMICAL OXIDATION) AREA
- NS — NOT SAMPLED
- NS, NAPL — NOT SAMPLED, NAPL PRESENT
- NE — NO EXCEEDANCE
- APPROXIMATE EXTENT OF DISSOLVED PHASE IMPACTS IN GALLIARD ABOVE RISK REDUCTION STANDARDS
- ESTIMATED EXTENT OF DISSOLVED PHASE IMPACTS IN GALLIARD ABOVE RISK REDUCTION STANDARDS

NOTES:

1. ORGANIC CONSTITUENTS ARE REPORTED IN µg/L
   INORGANIC CONSTITUENTS ARE REPORTED IN mg/L
2. GROUNDWATER DATA PRESENTED IS FROM JANUARY 2014 UNLESS OTHERWISE NOTED

ATLANTA GAS LIGHT COMPANY
VIRP-FORMER
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AUGUSTA, GEORGIA

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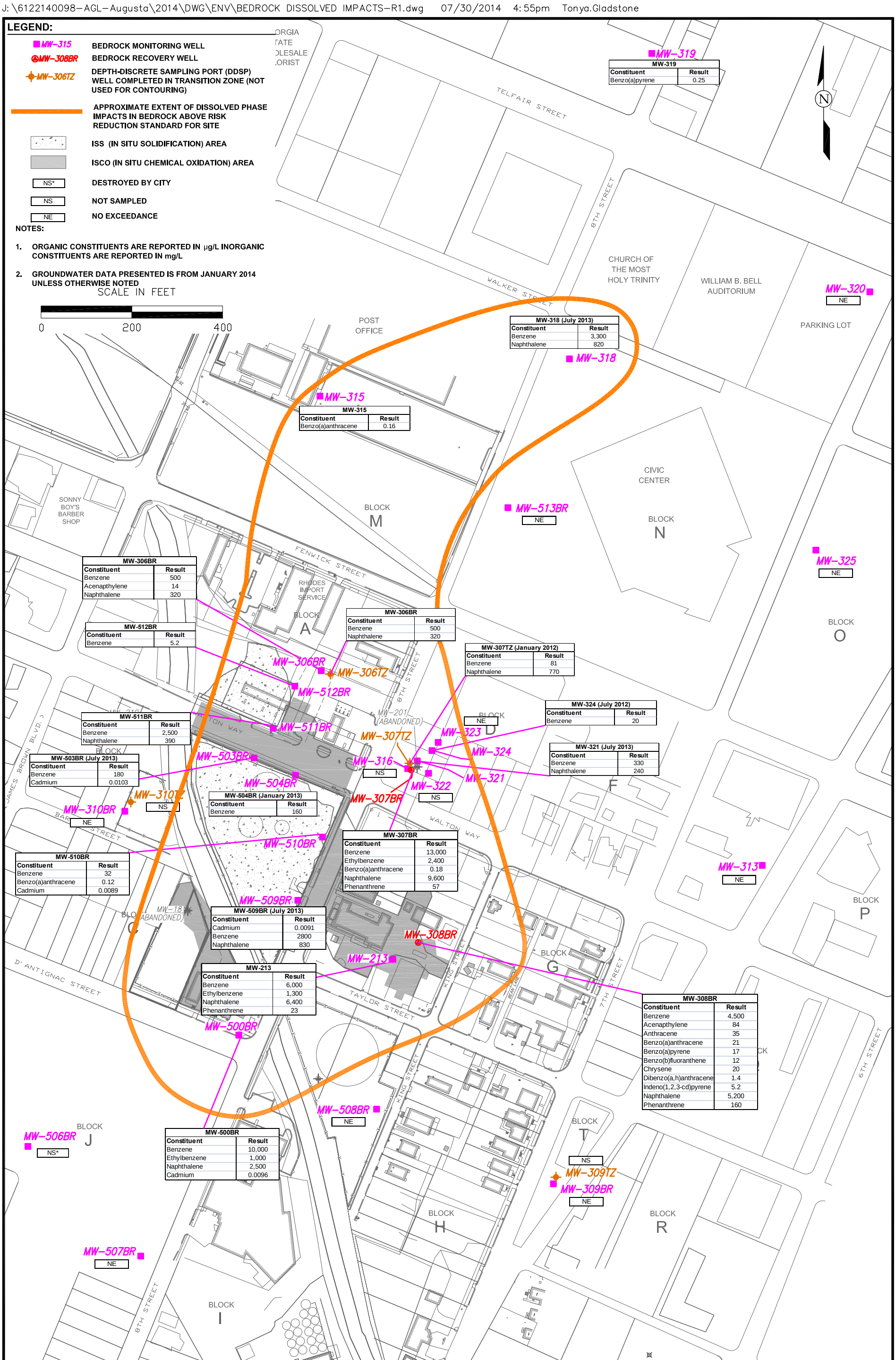
KENNESAW, GEORGIA 30144 (770) 421-3400

GALLIARD GROUNDWATER APPROXIMATE EXTENT OF DISSOLVED PHASE IMPACTS

JOB NO. **6122-14-0098** FIGURE **3-3**

PREPARED BY/DATE _____ CHECKED BY/DATE _____

J:\6122140098-AGL-Augusta\2014\DWG\ENV\BEDROCK DISSOLVED IMPACTS-R1.dwg 07/30/2014 4:55pm Tonya.Gladstone



ATLANTA GAS LIGHT COMPANY
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AUGUSTA, GEORGIA

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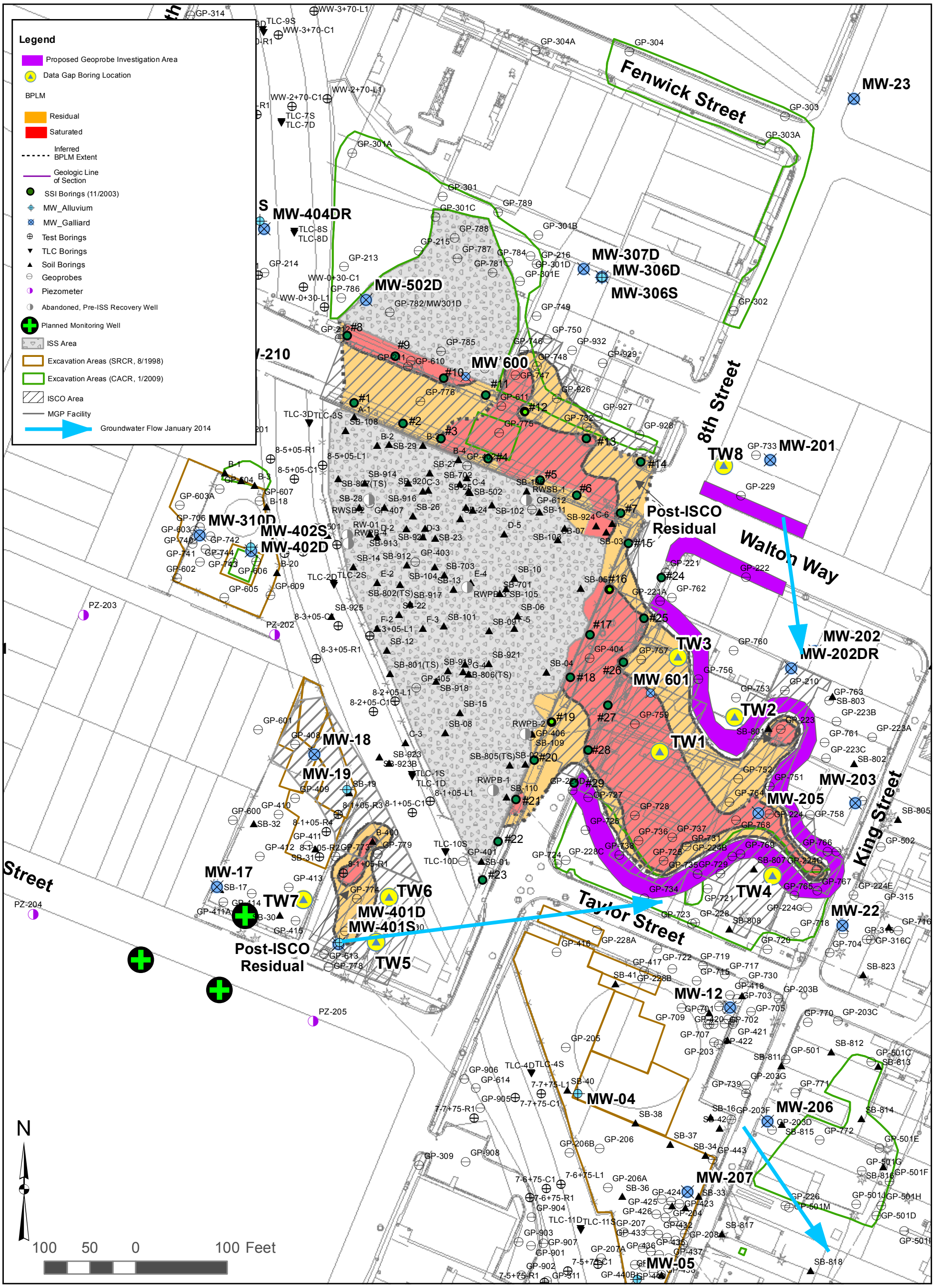
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

BEDROCK GROUNDWATER APPROXIMATE EXTENT OF DISSOLVED PHASE IMPACTS

JOB NO. **6122-14-0098** FIGURE **3-4**

PREPARED BY/DATE _____ CHECKED BY/DATE _____



Notes:

BPLM extent revised based on results of data-gap investigation and installation of additional Galliard wells.

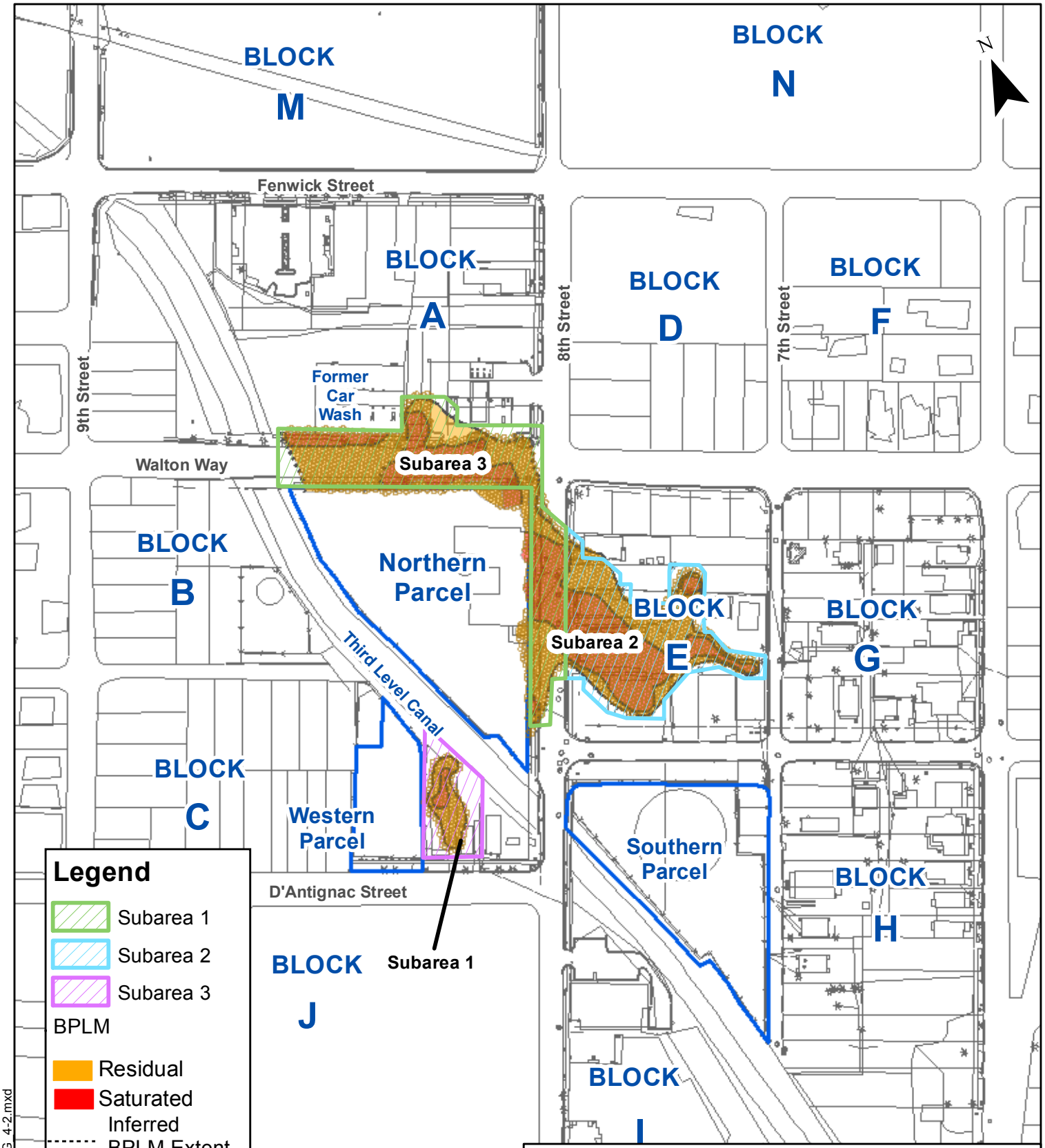
BPLM extent based on visual BPLM observations (before remediation) during boring and drilling; adjusted with the removal of BPLM in areas of In-Situ Solidification (ISS) and excavation; and comparison to 3d BPLM source model.

Extent shown conservatively assumes that observed BPLM were not reduced by ISCO.

Excavation areas for offsite properties from Corrective Action Closure Report (CACR), MACTEC, 1/16/2009.

Atlanta Gas Light Company VIRP-Former Manufactured Gas Plant Augusta, Georgia		
Planned Additional Investigation Areas		
Prepared By-Date: THP 7/14/14	amec	Figure: 4-1
Checked By-Date: LSM 7/14/2014		
Project Number: 6122140098		

Document Path: G:\AGL_Augusta\mxds\FIG_4-1.mxd



Source:
Source based on CAD drawing, IRM, Retec, 1997
Ownership status updated based on discussion with AGLC, 12/2009.
Environmental Cost Management 2012, Feasibility Study

Document Path: G:\AGL_Augusta\mxds\FIG_4-2.mxd

Atlanta Gas Light Company
VIRP-Former Manufactured Gas Plant
Augusta, Georgia

Planned Corrective Action

Prepared By-Date: THP 7/14/14	amec	Figure: 4-2
Checked By-Date: LSM 7/14/2014		
Project Number: 6122140098		

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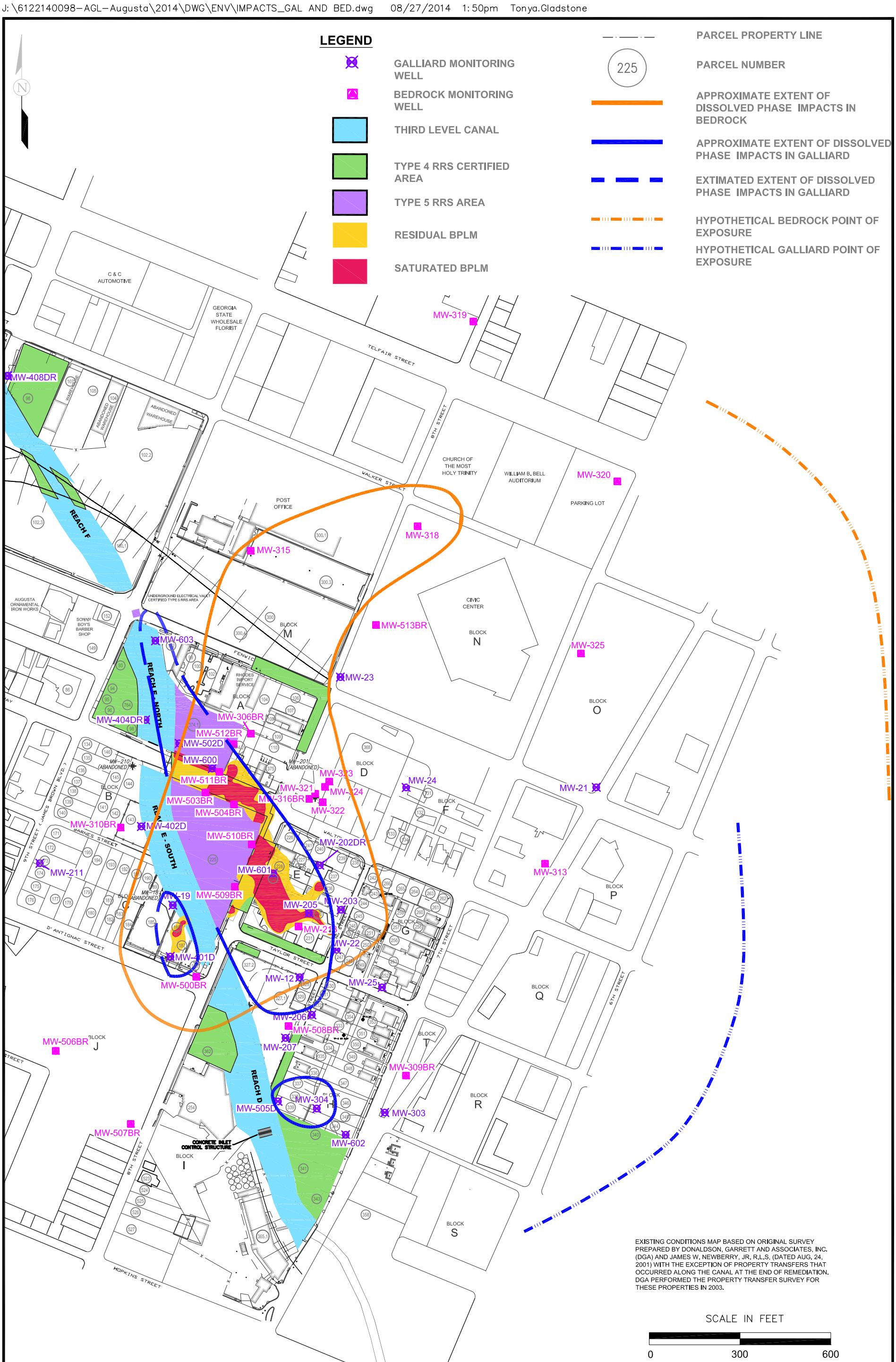

ATLANTA GAS LIGHT COMPANY
VIRP–FORMER
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AUGUSTA, GEORGIA

amec

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KENNESAW, GEORGIA 30144 (770) 421–3400

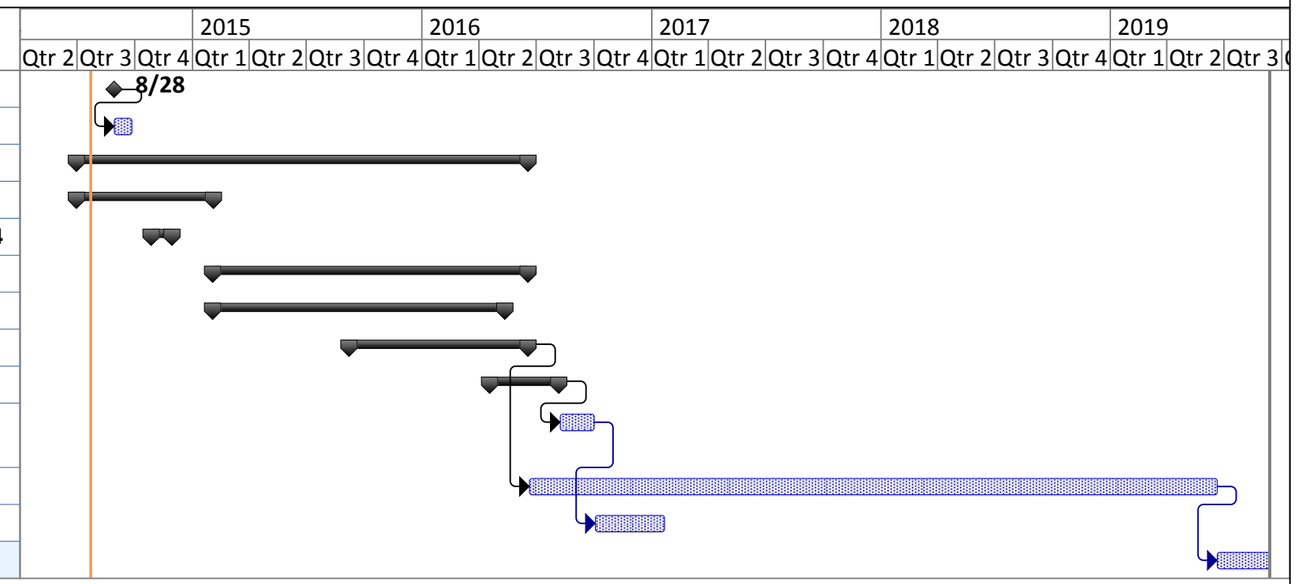
SITE DISSOLVED PHASE IMPACTS IN GROUNDWATER

JOB NO. **6122–14–0098** FIGURE **4–3**

PREPARED BY/DATE _____ CHECKED BY/DATE _____

Figure 5-1 AGLC - Augusta VIRP Schedule

ID	WBS	Task Name	Calendar Days	Working Days	Start	Finish
1	**1**	**VIRP Submittal**	**1**	**1 day**	**8/28/14**	**8/28/14**
2	**2**	**EPD Review/Concurrence - VRP Enrolled**	**28**	**20 days**	**8/29/14**	**9/25/14**
3	**3**	**Remediation/Restoration**	**719**	**515 days**	**6/30/14**	**6/17/16**
4	**3.1**	**Design/Contractor Procurement**	**218**	**156 days**	**6/30/14**	**2/2/15**
17	**3.2**	**Supplemental Investigation for Delineation**	**33**	**25 days**	**10/27/14**	**11/28/14**
21	**3.3**	**Construction**	**502**	**360 days**	**2/2/15**	**6/17/16**
22	**3.3.1**	**Remediation**	**465**	**333 days**	**2/2/15**	**5/11/16**
45	**3.3.2**	**Restoration**	**285**	**205 days**	**9/7/15**	**6/17/16**
53	**4**	**Remedial Action Closure Report**	**110**	**80 days**	**4/18/16**	**8/5/16**
61	**5**	**Calculate Appropriate Groundwater Cleanup Standards**	**54**	**40 days**	**8/8/16**	**9/30/16**
62	**6**	**Effectiveness Groundwater Monitoring**	**1095**	**783 days**	**6/20/16**	**6/19/19**
63	**7**	**Update CSM & Remediation Plan**	**110**	**80 days**	**10/3/16**	**1/20/17**
64	**8**	**Submit Compliance Status Report**	**84**	**60 days**	**6/20/19**	**9/11/19**



Project: AGLC - Augusta VIRP
Date: 7/23/14
File Name: AGLC Augusta VIRP_Schedule_7.23.14.mpp

Task Milestone Summary

APPENDIX A

VIRP APPLICATION FORM AND CHECKLIST

APPENDIX B

WARRANTY DEEDS FOR QUALIFYING VRP PROPERTIES

APPENDIX C

FINAL SCM AND SCM ADDENDUM AND SOIL LOGGING BPLM PROTOCOL (ELECTRONIC ONLY)

APPENDIX D

HISTORICAL POTENTIOMETRIC SURFACE MAPS AND CROSS SECTION FIGURES

APPENDIX E

AUGUSTA-RICHMOND COUNTY CODE WELL DIGGING PROHIBITION

APPENDIX F

PLANNED SEMI-ANNUAL GROUNDWATER MONITORING FOR REMEDY EFFECTIVENESS

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION

COMPANY NAME	Atlanta Gas Light Company				
CONTACT PERSON/TITLE	Greg Corbett, PE – Managing Director, Environmental Services				
ADDRESS	Ten Peachtree Pl, NE, Atlanta, GA 30309				
PHONE	404-584-3719	**FAX**		**E-MAIL**	gcorbett@aglresources.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP

NAME	Leslie Stubblefield Miller			**GA PE/PG NUMBER**	GA PE 035713
COMPANY	AMEC Environment & Infrastructure, Inc				
ADDRESS	1075 Big Shanty Road, Kennesaw, GA 30144				
PHONE	770-421-3400	**FAX**	770-421-3486	**E-MAIL**	leslie.miller@amec.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
- (C) A facility required to have a permit under Code Section 12-8-66.

(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:
- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE			
APPLICANT'S NAME/TITLE (PRINT)	**Managing Director, Environmental Services**	**DATE**	8/25/14

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10132	Date HSI Site listed	11/23/1998
HSI Facility Name	Atlanta Gas Light Company–Augusta MGP Site	NAICS CODE	
PROPERTY INFORMATION			
TAX PARCEL ID	046-4-185-00-0	PROPERTY SIZE (ACRES)	0.44
PROPERTY ADDRESS	815 Dantignac St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467546	LONGITUDE (decimal format)	-81.970333
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE # 404-584-3719	
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	7/31/2014 #56772	
2.	**WARRANTY DEED(S)** FOR QUALIFYING PROPERTY.	See Appendix B	
3.	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	See Figure 1	
4.	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Attached	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a **PROJECTED MILESTONE SCHEDULE** for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-annual status report to the director describing implementation of the plan	CSM summary in Section 3.0 of the VIRP; Schedule submitted as Figure 5-1 in the VIRP	

	annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the milestone schedule. The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:		
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	See Figure 5-1	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	See Figure 5-1	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	See Figure 5-1	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	See Figure 5-1	
6.	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." Leslie Stubblefield Miller PE 035713 — 8/28/14 Printed Name and GA PE/PG Number — Date Leslie Stubblefield Miller Signature and Stamp GEORGIA REGISTERED PE No. 035713 PROFESSIONAL ENGINEER LESLIE M. STUBBLEFIELD	See Appendix A	

ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-108-00-0	PROPERTY SIZE (ACRES)	0.12
PROPERTY ADDRESS	709 Eighth St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46908	LONGITUDE (decimal format)	-81.96889
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-109-00-0	PROPERTY SIZE (ACRES)	0.12
PROPERTY ADDRESS	713 Eighth St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46898	LONGITUDE (decimal format)	-81.96895
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	046-4-185-00-0	PROPERTY SIZE (ACRES)	0.44
PROPERTY ADDRESS	815 Dantignac St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467546	LONGITUDE (decimal format)	-81.970333
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	046-4-186-00-0	PROPERTY SIZE (ACRES)	0.15
PROPERTY ADDRESS	811 Dantignac St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467345	LONGITUDE (decimal format)	-81.970176
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	046-4-187-00-0	PROPERTY SIZE (ACRES)	0.10
PROPERTY ADDRESS	809 Dantignac St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46706	LONGITUDE (decimal format)	-81.96999
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	046-4-188-00-0	PROPERTY SIZE (ACRES)	0.12
PROPERTY ADDRESS	807 Dantignac St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46695	LONGITUDE (decimal format)	-81.96986
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	046-4-189-00-0	PROPERTY SIZE (ACRES)	0.06
PROPERTY ADDRESS	822 Barnes St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467793	LONGITUDE (decimal format)	-81.970387
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-225-00-0	PROPERTY SIZE (ACRES)	2.28
PROPERTY ADDRESS	802 Walton Way		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.468457	LONGITUDE (decimal format)	-81.969075
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-227-00-0	PROPERTY SIZE (ACRES)	0.15
PROPERTY ADDRESS	808 8th St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.468247	LONGITUDE (decimal format)	-81.968977
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-228-00-0	PROPERTY SIZE (ACRES)	0.13
PROPERTY ADDRESS	812 8th St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.468200	LONGITUDE (decimal format)	-81.969026
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-231-00-0	PROPERTY SIZE (ACRES)	0.10
PROPERTY ADDRESS	727 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467241	LONGITUDE (decimal format)	-81.968642
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-248-00-0	PROPERTY SIZE (ACRES)	0.10
PROPERTY ADDRESS	717 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.467	LONGITUDE (decimal format)	-81.96811
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-327-01-0	PROPERTY SIZE (ACRES)	0.89
PROPERTY ADDRESS	902 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.466525	LONGITUDE (decimal format)	-81.968917
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-327-02-0	PROPERTY SIZE (ACRES)	0.63
PROPERTY ADDRESS	902 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46657	LONGITUDE (decimal format)	-81.96976
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

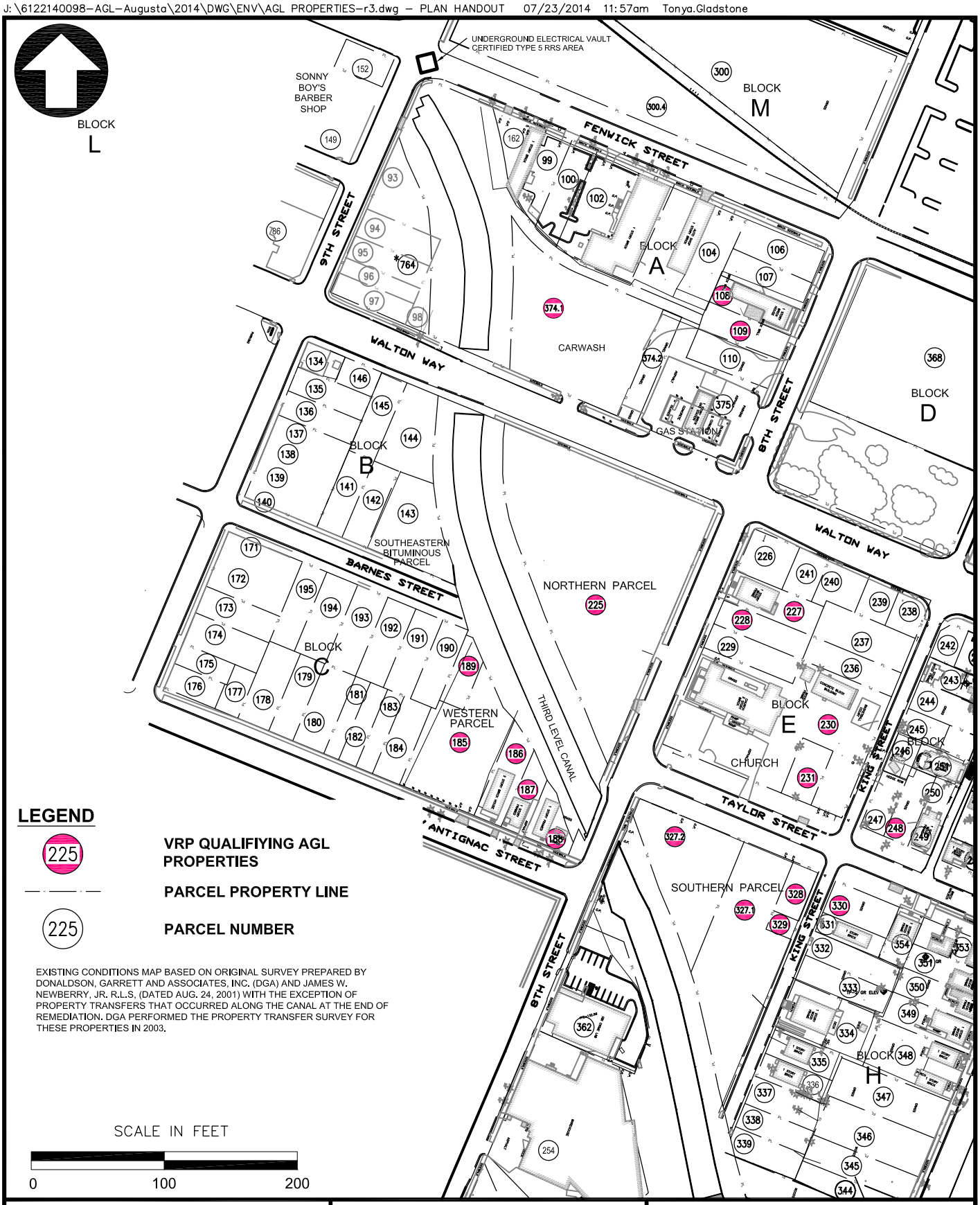
PROPERTY INFORMATION			
TAX PARCEL ID	047-3-328-00-0	PROPERTY SIZE (ACRES)	0.08
PROPERTY ADDRESS	718 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.466896	LONGITUDE (decimal format)	-81.968718
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-329-00-0	PROPERTY SIZE (ACRES)	0.03
PROPERTY ADDRESS	907 King St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.466729	LONGITUDE (decimal format)	-81.968777
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-330-00-0	PROPERTY SIZE (ACRES)	0.12
PROPERTY ADDRESS	716 Taylor St.		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.46659	LONGITUDE (decimal format)	-81.96834
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

PROPERTY INFORMATION			
TAX PARCEL ID	047-3-374-01-0	PROPERTY SIZE (ACRES)	0.87
PROPERTY ADDRESS	831 Walton Way		
CITY	Augusta	COUNTY	Richmond
STATE	GA	ZIPCODE	30901
LATITUDE (decimal format)	33.469052	LONGITUDE (decimal format)	-81.969739
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Atlanta Gas Light Company	PHONE #	404-584-3719
MAILING ADDRESS	Ten Peachtree Pl, NE, 17th Floor		
CITY	Atlanta	STATE/ZIPCODE	GA, 30309

J:\6122140098-AGL-Augusta\2014\DWG\ENV\AGL PROPERTIES-r3.dwg - PLAN HANDOUT 07/23/2014 11:57am Tonya.Gladstone



EXISTING CONDITIONS MAP BASED ON ORIGINAL SURVEY PREPARED BY DONALDSON, GARRETT AND ASSOCIATES, INC. (DGA) AND JAMES W. NEWBERRY, JR. R.L.S, (DATED AUG. 24, 2001) WITH THE EXCEPTION OF PROPERTY TRANSFERS THAT OCCURRED ALONG THE CANAL AT THE END OF REMEDIATION. DGA PERFORMED THE PROPERTY TRANSFER SURVEY FOR THESE PROPERTIES IN 2003.

ATLANTA GAS LIGHT COMPANY
VIRP-FORMER
MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

amec

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

QUALIFYING VRP
AGL PROPERTIES

JOB NO. 6122-14-0098 FIGURE: 1

PREPARED BY/DATE

CHECKED BY/DATE

ATTACHMENT 1
REGISTERED PROFESSIONAL SUPPORTING DOCUMENTATION

Summary of Hours and Services
Atlanta Gas Light Company – Augusta, GA Former MGP Site
HSI Site No. 10132
AMEC Project No. 6122-14-0098

Submittal to EPD date August 28, 2014 (2nd Submittal)
Leslie S. Miller, P.E.

Preparation of submittal, Application Form, Checklist, Schedule, and Voluntary Investigation and Remediation Plan and Review
139 hours charged through August 28, 2014
Leslie S. Miller, P.E.

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 48.00
Date 3-29-99
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

99 MAR 29 PM 4:55

PLEASE RETURN TO: J. Noel Schweers III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

709 Eighth Street

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 637 PAGE 1175
MIP ID: 393152

THIS INDENTURE, made this 29th day of March, 1999 between TOMIE LOUIS, JR. AND BRENDA LOUIS CARTER, INDIVIDUALLY AND AS EXECUTORS OF THE ESTATE OF LOTTIE M. LOUIS, DECEASED, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, and having a frontage of 40 feet on the west side of Jackson (Eighth) Street and extending back between parallel lines a distance of 130 feet, more or less, and being known and designated as Lot 11, Block 41 of Ward 2, as shown on the City of Augusta Plat Books in the City Tax Assessor's Office. Said property is bounded as follows: On the North,

by Lot 10 of said block and ward; on the East, by Jackson (Eighth) Street; on the South, by Lot 12 of said block and ward; and on the West, by Lots 8 and 24 of said block and ward.

BEING the same property conveyed to Tomie Louis and Lottie M. Louis by Warranty Deed of J. A. Lewis dated July 3, 1961, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Book 27R, page 454.

SAID property is known and designated as 709 Eighth Street according to the system of street numbering currently in use by Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals, individually and as Executors aforesaid, the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Tomie Louis, Jr. (L.S.)
Tomie Louis, Jr., individually and as
Executor of the Estate of Lottie M. Louis

Notary Public, Richmond County, Georgia
My commission expires: 8-25-2000

Brenda Louis Carter (L.S.)
Brenda Louis Carter, individually and as
Executor of the State of Lottie M. Louis

(NOTARY SEAL)

RICHMOND COUNTY, GA SUPERIOR COURT
FILED 29 FEB 1999 AT 04 55PM

R. DANIEL WEIGLE
3320 WASHINGTON RD
MARTINEZ, GA. 30907

REEL 637 PAGE 1177

State of Georgia
County of Richmond

99 MAR 29 PM 3:58

Filed in this office this 29th day of March 3:58 pm 1999
Elena C. Johnson
Clerk

QUITCLAIM DEED

This indenture made this 22nd day of March, 1999, by and between Wachovia Mortgage Company party or parties of the first part, herein after referred to as "Grantor," and

Good Investments, Inc., party or parties of the second part hereinafter referred to as the "Grantee," the words "Grantor" and "Grantee" to include the neuter, masculine and feminine genders, the singular and the plural;

WITNESSETH: That Grantor for and in consideration of the sum of ONE AND NO/100 DOLLAR ($1.00) AND OTHER VALUABLE CONSIDERATION, cash in hand paid, the receipt of which is hereby acknowledged, has bargained, sold, and does by these presents bargain, sell, remise, release, and forever quitclaim to Grantee the interest of grantor arising solely by virtue of the lien of that certain Security Deed from Good Investments, Inc., to WACHOVIA MORTGAGE COMPANY dated September 16, 1998, securing payment of $140,850.00 and recorded September 22, 1998, on Reel 612, Page 876, Richmond County, Georgia Records, in and to the following described real property, to wit:

> ALL those lots or parcels of land with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as Lot 6, Block "D", Phase Two. The Woodlands of Goshen Subdivision, being more particularly shown on plat which is recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia in Reel 516, pages 1533-1538 and reference is hereby made to said plat for a more complete and accurate description as to metes, bounds and location of said property.
>
> This property is conveyed subject to any easements or restrictions of record in said clerk's office.

With all rights, members and appurtenances to the said described premises in anywise appertaining or belonging.

TO HAVE AND TO HOLD the said described premises unto the Grantee so that neither the said Grantor, nor any other person or persons claiming under Grantor shall at any time claim or demand any right to the aforesaid described premises or its appurtenances. This quitclaim deed shall affect only the title to the land herein described, and as to the remainder of the land described in said security deed the lien shall remain in full force and effect.

IN WITNESS WHEREOF, The Grantor has signed and sealed this deed, the day and year above written.

Signed, sealed and delivered in presence of

(Witness) Karen Williams

(Notary Public) Patty S. Crow 3/22/99 (Date)

OFFICIAL SEAL
PATTY S. CROW
Notary Public, North Carolina
COUNTY OF FORSYTH
My Commission Expires
October 18, 2000

My commission expires

WACHOVIA MORTGAGE COMPANY

BY _____ (SEAL)
Vice President—Gregory J. Hills

Susan E. Spruill (SEAL)
Assistant Secretary—Susan E. Spruill

(Corporate Seal)

ORIGINAL REEL RECORDED
REEL 637 PAGE 1177
NIP ID: 393153

8308ga.doc

RICHMOND COUNTY,GA SUPERIOR COURT
FILED 29 MAR 1999 AT 03:58PM

PROBATE COURT OF RICHMOND COUNTY
STATE OF GEORGIA

[illegible]29 AM 9:35

RE: ESTATE OF

ESTATE NO. 15-81

PETITION FOR YEAR'S SUPPORT

GEORGE R. ANDERSON
DECEASED

MARCH TERM, 1999

FINAL ORDER

The petition for a Year's Support for MARY CATHERINE COLEY ANDERSON decedent's (surviving spouse), setting forth the property sought to be set aside as a year's support, was filed; notice was issued, published, and served as required by law; and no objection was filed to the petition.

WHEREFORE IT IS ORDERED that the petition is granted and the following property is made the award of this court; and property taxes on any property awarded shall be divested as elected in the petition:

See attached schedule of property

March 8th 1999
DATE

JUDGE OF PROBATE COURT

NOTICE
STATE OF GEORGIA
COUNTY OF RICHMOND
PROBATE COURT
FEBRUARY TERM, 1999
IN RE: ESTATE OF GEORGE R. ANDERSON

THE PETITION OF MARY CATHERINE COLEY ANDERSON for a YEAR'S SUPPORT from the Estate of GEORGE R. ANDERSON deceased, for decedent's surviving spouse, having been duly filed.

ALL INTERESTED PERSONS are hereby notified to be present in said Court, the first Monday in March, 1999 and said Petition will be heard.

ALL OBJECTIONS TO THE PETITION must be in writing, setting forth the grounds of any such objections, and must be filed with the Court on or before the time stated in the preceding paragraph.

IF ANY OBJECTIONS ARE FILED, A HEARING WILL BE SCHEDULED AT A LATER DATE. IF NO OBJECTIONS ARE FILED, THE PETITION MAY BE GRANTED WITHOUT A HEARING.

This 1st day of February, 1999.

WITNESS, the Honorable ISAAC S. JOLLES, JUDGE OF PROBATE COURT OF RICHMOND COUNTY, GEORGIA.

SEAL

GERALDINE P. POWELL
Clerk of Probate Court
Richmond County, Georgia

Attorney Forrest W. Sharp
[illegible]
Augusta, Georgia 30905

Feb. 5, 12, 19, 26, 1999

ORIGINAL REEL RECORDED
REEL 637 PAGE 1178
MIP ID: 393155

This is a certifiel copy of Year's Support Order
Given 24th day of March, 1999.

Clerk of Probate Court

ALL THAT LOT OR PARCEL OF LAND, with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as Lot 2, Block "T", Section 2-A, Woodlake Subdivision, as shown on a plat thereof recorded in the Office of the Clerk of Superior Court, Richmond County, Georgia in Realty Reel 26, pages 29-34; to which plat reference is hereby had for a more complete and accurate description as to metes, bounds and location of said property.

Together with any and all personal property of every nature owned by the late GEORGE R. ANDERSON, at the time of his death, including but not limited to cars, checking and savings accounts, stocks, cash government bonds, furniture, and all indebtedness due him or to become due him including, without excluding any other, all choses in action, against any firm or partnership, corporation or any other, or U. S. Government, State of Georgia, or any subdivision of either including any income tax or other tax refund that said GEORGE R. ANDERSON was entitled to at his death or becomes entitled to thereafter.

RICHMOND COUNTY,GA SUPERIOR COURT
FILED 29 MAR 1999 AT 09:35AM

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

713 Eighth Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 10.70
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between VIC HERRIN AND EDITH L. HERNDON, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that parcel, piece or lot of land, together with the improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the west side of Eighth Street (Jackson Street) between Fenwick and Calhoun Streets, fronting a distance of 40 feet, more or less, on said Eighth Street (Jackson Street), extending back therefrom of equal width a distance of 130 feet, more or less, and bounded, now or formerly, as follows: On the North and South, by property now or formerly of Daniel Galvan; on the East, by Eighth Street (Jackson Street); and on the West, by property now or formerly of E. W. Hancock.

BEING a portion of the same property conveyed to Vic Herrin and Edith L. Herndon by Warranty Deed of First Railroad & Banking Company of Georgia dated March 25, 1987, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 256, pages 1607-1609.

SAID property is known and designated as 713 Eighth Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

V.H. ELH

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2082
WIP ID 326459

party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Vic Herrin (L.S.)
Vic Herrin

Notary Public, Richmond County, Georgia

Edith L. Herndon (L.S.)
Edith L. Herndon

My commission expires: 8-25-2000

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:26PM
RECORDED 12 SEP 1997

REEL 569 PAGE 2084

Revised 01/02/92
GA (Conventional)

REO No. A971560

STATE OF GEORGIA) ss.
COUNTY OF)

SPECIAL WARRANTY DEED

THIS INDENTURE, made on the 29th day of AUGUST, 1997, between FEDERAL NATIONAL MORTGAGE ASSOCIATION, a corporation organized under and existing pursuant to the laws of the United States, as party of the first part, and Glenese Kelly of 3316 Jonathon Circle, Augusta, GA 30906, and their assigns, as party of the second part.

WITNESSETH, THAT:

The said party of the first party, for and in consideration of the sum of Thirty Three Thousand Nine Hundred and NO/100 Dollars ($33,900.00) and other valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed, and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the party of the second part, and their assigns, subject to convenants and restrictions of record and matters an accurate survey would reveal, the following described property, to-wit:

The property is commonly known as 3316 Jonathon Circle, Augusta, GA 30906, and is more particularly described in ExhibitA attached hereto and made a part hereof by this reference.

TO HAVE AND TO HOLD the said property hereinbefore described, together with all and singular the rights, members and appurtenances thereunto appertaining, to the only proper use, benefit and behoof of the said party of the second part, and their assigns, in fee simple; and the said part of the first part specially warrants the title to the said bargained property above described against the lawful claims of all persons claiming by, through or under party of the first part.

IN WITNESS WHEREOF, Federal National Mortgage Association has caused this instrument to be executed in its name and on its behalf by its undersigned officers, seal affixed, the day and year first above written.

(CORPORATE SEAL)

FEDERAL NATIONAL MORTGAGE ASSOCIATION

BY: _____
Justin Cade Stephens-Vice President

Attest: _____
Deborah Komperda-Assistant Secretary

Signed, sealed and delivered in the presence of:

_____
Stacey Parker

_____
Randy Conatser, Notary Public, Texas
My Commission Expires:
(SEAL)

RANDY L. CONATSER
MY COMMISSION EXPIRES
January 15, 2000

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 0
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

ORIGINAL REEL RECORDED
REEL 569 PAGE 2084
WIP ID: 326460

Schedule A

ALL that lot or parcel of land with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as Lot 23, Block "D", Section VI of Apple Valley Subdivision, as shown on a plat recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia, in Realty Reel 15, page 1854-1861; reference being made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:32PM
RECORDED 12 SEP 1997

File No: R97-1004

M.K.

REEL 569 PAGE 2086

DAVID L. HUGUENIN
HUGUENIN, ANNIS AND LEWIS
P.O. BOX 211683
MARTINEZ, GA 30917-1683

RICHMOND COUNTY, GEORGIA
Intangible Tax
Paid $ no Tax Due
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

After Recordation Return to:

LOAN NO. 129965

[Space Above This Line For Recording Data]

SECURITY DEED

97 SEP 12 PM 2:35

THIS SECURITY DEED ("Security Instrument") is given on AUGUST 29, 1997. The grantor is GLENESE KELLY

ORIGINAL REEL RECORDED
REEL 569 PAGE 2086
WIP ID: 326461

("Borrower"). This Security Instrument is given to FEDERAL NATIONAL MORTGAGE ASSOCIATION,

which is organized and existing under the laws of UNITED STATES OF AMERICA, and whose address is 2296 HENDERSON MILL RD #306
ATLANTA, GA 30345
("Lender"). Borrower owes Lender the principal sum of Thirty Two Thousand Two Hundred and no/100 Dollars (U.S. $ 32,200.00). This debt is evidenced by Borrower's note dated the same date as this Security Instrument ("Note"), which provides for monthly payments, with the full debt, if not paid earlier, due and payable on September 1, 2027. This Security Instrument secures to Lender: (a) the repayment of the debt evidenced by the Note, with interest, and all renewals, extensions and modifications of the Note; (b) the payment of all other sums, with interest, advanced under paragraph 7 to protect the security of this Security Instrument; and (c) the performance of Borrower's covenants and agreements under this Security Instrument and the Note. For this purpose, Borrower does hereby grant and convey to Lender and Lender's successors and assigns, with power of sale, the following described property located in RICHMOND/GA County, Georgia:

SEE SCHEDULE "A" ATTACHED HERETO AND BY THIS REFERENCE
MADE A PART HEREOF FOR LEGAL DESCRIPTION

which has the address of 3316 JONATHAN CIRCLE, AUGUSTA [Street, City],
Georgia 30906 [Zip Code] ("Property Address");

REEL 569 PAGE 1458

RETURN TO
ITT CFC, CFU, PO BOX 9394, MPLS, MN 55440

STATE OF GEORGIA }
}
COUNTY OF RICHMOND }

INSTRUMENT REEL RECORDED
REEL 569 PAGE 1458
WIP ID: 326143

CANCELLATION

THE DEBT SECURED by that certain Deed to Secure Debt from ____

CHARLES HOUSTON WRIGHT

to AETNA FINANCE COMPANY Dated _____ and recorded MAY 13, 1982 in Deed Book 150, Page 1087, in the Office of the Clerk of the Superior Court of RICHMOND COUNTY, GEORGIA, having been paid in full, said Deed to Secure Debt is hereby cancelled and fully satisfied and the Clerk of the Superior Court of RICHMOND COUNTY, Georgia, is hereby authorized and directed to make this cancellation of Record. Said Deed to Secure Debt encumbered the following real property, to-wit:

SEE ATTACHED LEGAL DESCRIPTION

WHEREOF, the Undersigned has hereunto set its duly authorized hands and its seal this August 7, 1997.

Signed, and sealed in the presence of:

COMPUTER & EQUIPMENT LEASING CORPORATION,
a Wisconsin corporation, successor in interest by merger to
AETNA FINANCE COMPANY

Witness

BY: _____
T. WILLIAM BIXBY Vice President

ATTEST: _____
SUSAN T. MOATS Assistant Secretary

Notary Public
Commission Expiration Date
January 31, 2000

DAWN MARIE UNDERDAHL
NOTARY PUBLIC - MINNESOTA
ANOKA COUNTY
My Commission Expires Jan 31, 2000

Corporate Seal

GA: RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 10 SEP 1997 07 01 50PM
RECORDED 10 SEP 1997

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax

Paid $ 0

Date 9-10-97

Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

REEL 569 PAGE 1459

Return to:
Robert W. Hunter, III
266 Greene Street
Augusta, Georgia 30901

T.N.E.

STATE OF GEORGIA,

COUNTY OF RICHMOND,

QUIT-CLAIM DEED

ORIGINAL REEL RECORDED
REEL 569 PAGE 1459
WIP ID: 326144

THIS INDENTURE, made this 9th day of September, in the Year of Our Lord, One Thousand Nine Hundred and Ninety Seven (1997), between LANDON D. TERRY, party of the first part, and NAOMI B. TERRY, party of the second part.

WITNESSETH: That the said party of the first part, for and in consideration of the sum of TEN AND 00/100 ($10.00) DOLLARS in hand paid, the receipt whereof is acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the party of the second part, her heirs and assigns, the following described property, to wit:

ALL that lot or parcel of land, together with all improvements located thereon, situate, lying and being in the City of Augusta, County of Richmond, State of Georgia, fronting Sixty-five and one-half (65 ½') feet, more or less, on Reynolds Street and running back between uneven lines to Jones Street. The improvements on said property being known under the present system of numbering of the City of Augusta as 1346 Reynolds Street and 1333-1337 Jones Street. All of said property being contained within a chain link fence and appearing to be one parcel of property.

The property designated as No. 1333 Jones Street was conveyed to Dewey F. Terry by warranty deed of George Lamar and Senia Lamar dated June 17th, 1966, recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia, in Realty Book 32-W, pages 824-25.

The property designated as No. 1335 Jones Street was conveyed to Dewey F. Terry on May 10, 1963, by warranty deed of Addie Singleton, said deed being recorded in said Clerk's Office in Realty Book 29-E, pages 693-4.

The property designated as No. 1337 Jones Street was conveyed to Dewey F. Terry by warranty deed of Leon Ghitter dated July 14th, 1971, said deed being recorded in said Clerk's Office in Realty Book 39-F, pages 524-25.

The property designated as 1346 Reynolds Street was conveyed to Dewey F. Terry by deed of correction of Addie Singleton dated March 20th, 1956, said deed being recorded in said Clerk's Office in Realty book 23-L, pages 296-97.

TO HAVE AND TO HOLD the said described property to the said party of the second part, so that neither the said party of the first part nor his heirs, nor any other person or persons claiming under him shall at any time, by any means or ways, have, claim or

demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, The said party of the first part has hereunto set his hand and seal, the day and year above written.

LANDON D. TERRY

Signed, sealed and delivered
in the presence of:

Notary Public

JOAN F. HILL
NOTARY
EXPIRES
GEORGIA
APRIL 24, 1999
PUBLIC
RICHMOND COUNTY

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 10 SEP 1997 AT 02:18PM
RECORDED 10 SEP 1997

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax

Paid $ 0

Date 9-10-97

Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

REEL 569 PAGE 1461

Return to:
Robert W. Hunter, III
266 Greene Street
Augusta, Georgia 30901

T.N.E.

STATE OF GEORGIA,

COUNTY OF RICHMOND,

QUIT-CLAIM DEED

THIS INDENTURE, made this 5th day of September, in the Year of Our Lord, One Thousand Nine Hundred and Ninety Seven (1997), between LANDON D. TERRY, party of the first part, and NAOMI B. TERRY, party of the second part.

WITNESSETH: That the said party of the first part, for and in consideration of the sum of TEN AND 00/100 ($10.00) DOLLARS in hand paid, the receipt whereof is acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the party of the second part, her heirs and assigns, the following described property, to wit:

> ALL that lot or parcel of land, with all the improvements thereon, situate, lying and being in Richmond County, Georgia, known and designated as Lot No. 2, Block A, on a plat of Berckman Hills recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia, in Realty Book 26-L, page 124. Said lot fronts one hundred (100') feet on the South side of Ingleside Drive and runs back one hundred seventy-five (175') feet on its Western boundary and one hundred seventy-nine (179') feet on its Eastern boundary to a rear width of one hundred twenty-five (125') feet. Said lot is bounded: North by Ingleside Drive, East by Lot no. 3 of said block and plat; South by land, now or formerly, of Boardman; and West by Lot No. 1 of said block and plat.
>
> This being the same property conveyed to Dewey F. Terry by warranty deed of John Henry Shipman on the 16th day of February, 1968, said deed being recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia.
>
> Said property is known under the present system of numbering of Richmond County, Georgia, as 2704 Ingleside Drive.

ORIGINAL REEL RECORDED
REEL 569 PAGE 1461
WIP ID: 326145

TO HAVE AND TO HOLD the said described property to the said party of the second part, so that neither the said party of the first part nor his heirs, nor any other person or persons claiming under him shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, The said party of the first part has hereunto set his hand and seal, the day and year above written.

Signed, sealed and delivered
in the presence of:

LANDON D. TERRY

Notary Public

JOAN F. HILL
NOTARY
EXPIRES
GEORGIA
APRIL 24, 1999
PUBLIC
RICHMOND COUNTY

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 10 SEP 1997 AT 02 16PM
RECORDED 10 SEP 1997

REEL 569 PAGE 1462

Ref: 97-887 Gibbs Auto Wrecking Co. Refinance

Return to: J. Milton Martin, Jr.
P.O. Box 211649
Augusta, GA 30917

STATE OF GEORGIA

COUNTY OF RICHMOND

C A N C E L L A T I O N

INSTRUMENT REEL RECORDED
REEL 569 PAGE 1462
WIP ID: 326146

The indebtedness referred to in that certain deed to secure debt from John T. Gibbs, Jr. dated October 31, 1980 and of record on Reel 132, page 1971, in the Office of the Clerk of the Superior Court of Richmond County, Georgia, having been paid in full and the undersigned being the present record holder and owner of such deed by virtue of being the original grantee or by virtue of assignment(s) of record in Deed Book(s) n/a, page(s) n/a, the Clerk of such Superior Court is authorized and directed to cancel that deed of record as provided in Code Section 44-14-4 of the O.C.G.A. for other mortgage cancellations.

IN WITNESS WHEREOF, the undersigned has set her hand and seal, this 5th day of September, 1997.

Gibbs Auto Wrecking Company

97 SEP 10 PM 2:36

aka Gibbs Auto Wrecking Co., Inc.

By: _____ L.S.

As its President

Vice-Pres.

Signed, sealed and delivered on the date above shown:

_____
Unofficial Witness

_____
Notary Public
(Seal)
Commission expiration date:

MILTON MARTIN JR. NOTARY PUBLIC EXP 2-10-0 COLUMBIA CO.

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 10 SEP 1997 AT 02:36PM
RECORDED 10 SEP 1997

P.H.
J.B.

PLEASE RETURN TO: J. Noel Schwoon, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

717 Taylor Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 25.50
Date 4-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between PINK GREEN AND TERRIE J. GREEN, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the north side of Taylor Street, and having a frontage of 39.4 feet, more or less, on Taylor Street, and extending back between parallel lines a distance of 111.5 feet, more or less. Said property is bounded, now or formerly, as follows: On the North, by property now or formerly of Mustin; on the East, by property now or formerly of Moore; on the South, by Taylor Street; and on the West by property now or formerly of Warren Estate. The improvements on said property are known as 717-719 Taylor Street.

THIS being a portion of the property conveyed to Pink Green and Terri J. Green part by Warranty Deed dated July 2, 1981, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 140, pages 1958-1961.

SAID property is known and designated as 717 Taylor Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2080
WIP ID: 326458

party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Pink Green (L.S.)
Pink Green

Notary Public, Richmond County, Georgia

Terrie J. Green (L.S.)
Terrie J. Green

My commission expires: 8-25-2000

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:24PM
RECORDED 12 SEP 1997

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

713 Eighth Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 10.70
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between VIC HERRIN AND EDITH L. HERNDON, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that parcel, piece or lot of land, together with the improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the west side of Eighth Street (Jackson Street) between Fenwick and Calhoun Streets, fronting a distance of 40 feet, more or less, on said Eighth Street (Jackson Street), extending back therefrom of equal width a distance of 130 feet, more or less, and bounded, now or formerly, as follows: On the North and South, by property now or formerly of Daniel Galvan; on the East, by Eighth Street (Jackson Street); and on the West, by property now or formerly of E. W. Hancock.

BEING a portion of the same property conveyed to Vic Herrin and Edith L. Herndon by Warranty Deed of First Railroad & Banking Company of Georgia dated March 25, 1987, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 256, pages 1607-1609.

SAID property is known and designated as 713 Eighth Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

V.H. ELH

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2082
WIP ID 326459

party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Vic Herrin (L.S.)
Vic Herrin

Notary Public, Richmond County, Georgia

Edith L. Herndon (L.S.)
Edith L. Herndon

My commission expires: 8-25-2000

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:26PM
RECORDED 12 SEP 1997

REEL 569 PAGE 2084

Revised 01/02/92
GA (Conventional)

REO No. A971560

STATE OF GEORGIA) ss.
COUNTY OF)

SPECIAL WARRANTY DEED

THIS INDENTURE, made on the 29th day of AUGUST, 1997, between FEDERAL NATIONAL MORTGAGE ASSOCIATION, a corporation organized under and existing pursuant to the laws of the United States, as party of the first part, and Glenese Kelly of 3316 Jonathon Circle, Augusta, GA 30906, and their assigns, as party of the second part.

WITNESSETH, THAT:

The said party of the first party, for and in consideration of the sum of Thirty Three Thousand Nine Hundred and NO/100 Dollars ($33,900.00) and other valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed, and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the party of the second part, and their assigns, subject to convenants and restrictions of record and matters an accurate survey would reveal, the following described property, to-wit:

The property is commonly known as 3316 Jonathon Circle, Augusta, GA 30906, and is more particularly described in ExhibitA attached hereto and made a part hereof by this reference.

TO HAVE AND TO HOLD the said property hereinbefore described, together with all and singular the rights, members and appurtenances thereunto appertaining, to the only proper use, benefit and behoof of the said party of the second part, and their assigns, in fee simple; and the said part of the first part specially warrants the title to the said bargained property above described against the lawful claims of all persons claiming by, through or under party of the first part.

IN WITNESS WHEREOF, Federal National Mortgage Association has caused this instrument to be executed in its name and on its behalf by its undersigned officers, seal affixed, the day and year first above written.

(CORPORATE SEAL)

FEDERAL NATIONAL MORTGAGE ASSOCIATION

BY: _____
Justin Cade Stephens-Vice President

Attest: _____
Deborah Komperda-Assistant Secretary

Signed, sealed and delivered in the presence of:

_____
Stacey Parker

_____
Randy Conatser, Notary Public, Texas
My Commission Expires:
(SEAL)

RANDY L. CONATSER
MY COMMISSION EXPIRES
January 15, 2000

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 0
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

ORIGINAL REEL RECORDED
REEL 569 PAGE 2084
WIP ID: 326460

Return to:

O. Franklin Askin, Jr.
(Name)
2913 Professional Parkway
Augusta, Georgia 30907
(Address)

REEL 569 PAGE 2261

STATE OF GEORGIA)
)
COUNTY OF Richmond)

ORIGINAL REEL RECORDED
REEL 569 PAGE 2261
WIP ID: 326552

File #97-567

DEED TO SECURE DEBT, ASSIGNMENT OF RENTS AND SECURITY AGREEMENT

THIS DEED TO SECURE DEBT, ASSIGNMENT OF RENTS, AND SECURITY AGREEMENT made this 1st day of August 19 97, by and between Albert S. and June W. Bonner ("Grantor") whose address is 855 Bennock Mill Road, Augusta, Georgia 30906 ~~First Union National Bank~~, and First Union National Bank of Georgia a national banking association ("Grantee"), whose principal place of business is 699 Broad Street, Augusta, Ga. 30901.

IF THIS BOX IS CHECKED, THIS INSTRUMENT IS A "CONSTRUCTION MORTGAGE" AS THAT TERM IS DEFINED IN SECTION 11-9-313 (1) (c) OF THE OFFICIAL CODE OF GEORGIA, AND THE PROCEEDS OF THE INDEBTEDNESS SECURED HEREBY HAVE BEEN GIVEN TO FINANCE THE CONSTRUCTION OF AN IMPROVEMENT UPON LAND AND/OR THE ACQUISITION COST OF THE LAND

THAT, WHEREAS, Grantor is justly indebted to Grantee in the sum of Sixty- Three Thousand-Three Hundred Fifty and 96/100---------- DOLLARS in lawful money of the United States, or, if this instrument is a construction mortgage, so much of said sum as may be advanced, and has agreed to pay the same, with interest thereon, according to the terms of a certain note given by Grantor to Grantee, bearing even date herewith, with final payment being due on August 15, ~~xx~~ 2012 ("Note"). The maximum amount that may be secured by this deed is $ 63,350.96. The amount presently secured by this deed is $ 63,350.96.

NOW, THEREFORE, in consideration of the property and of the sum hereinabove set forth, Grantor has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto Grantee the following property:

Witnesseth, that in and for the consideration hereinafter mentioned, receipt whereof is hereby acknowledged, the Grantor does hereby bargain,sell,grant and convey unto the Grantee, all that estate situated and being in the State of Georgia, County of Richmond, and being known and designated as Lot NO. 3 on a plat prepared by Besson & Pope, Consulting Engineers, dated January 23, 1972, and recorded on Rel No. 1, page 980, in the Office of the Clerk of the Superior Court of Richmond County, Georgia, which plat by reference thereto is made a part hereof in aid of a more particular description as to metes, bounds, courses and distances.

SAID PROPERTY IS CONVEYED SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

RICHMOND COUNTY, GEORGIA
Intangible Tax
Paid $ 190.50
Date 9-15-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

97 SEP 15 AM 10:13

TOGETHER WITH, all and singular, the improvements, fixtures, easements, hereditaments, rights, members and appurtenances thereunto belonging or in anywise appertaining, including, without limitation: the buildings and improvements now or hereafter erected thereon, and the fixtures, attachments, appliances, equipment, machinery and other articles affixed or attached to said buildings and improvements including, without limitation, all building materials, electrical, plumbing, heating and air conditioning systems (including window units), all built-in appliances, cabinets and lighting fixtures (the "Improvements"), and all minerals, shrubs, trees or other emblements now or hereafter on said Property or under or above the same or any part or parcel thereof, and all leasehold estates, usufructuary interests, and rights of Grantor in the Property; and all rights of Grantor as Lessor or Landlord under any lease or sublease letting or demising all or any portion of the Property or Improvements, including, without limitation, the interest of Grantor in all rents and security deposits paid or to be paid thereunder, and all right of claim of Grantor with respect to the proceeds of insurance which Grantor now has or may hereafter acquire in the Property and Improvements and any and all awards made for the taking by eminent domain, by any proceeding or purchase in lieu thereof, of the whole or any part of the Property and Improvements; and if this is a construction mortgage all right, title and interest of Grantor in and to all construction materials and equipment.

TO HAVE AND TO HOLD all of the aforementioned Property, Improvements, property rights, leases, contract rights, and claims (all of which are collectively referred to as the "Property") to the use, benefit and behoof of the Grantee, forever, in fee simple.

Grantor warrants that Grantor has good title to the Premises, and is lawfully seized and possessed of the Premises and every part thereof, and has the right to convey same; that the Premises are unencumbered except as may be herein expressly provided below; and the Grantor will forever warrant and defend the title to the Premises unto Grantee against the claims of all persons whomsoever.

FUTURE ADVANCES:

THIS INSTRUMENT IS A DEED passing legal title pursuant to the laws of the State of Georgia governing deeds to secure debt and is not a mortgage. This deed is made, given and intended to secure the performance by Grantor of all obligations under, and payment of all indebtedness of Grantor to Grantee from time to time outstanding under the terms of the Note, together with any and all renewal(s), extension(s), consolidation(s), and/or replacement(s), thereof, in whole or in part, together with any and all indebtedness, liabilities or other obligations arising out of contract or agreement now or hereafter owing by Grantor to Grantee (including, without limitation, any future indebtedness, liabilities and other obligations arising as a loan, lease, line of credit, letter of credit or other type of financing, or arising out of or relating to a promissory note, bill of exchange, check, draft, bond, letter of credit, guaranty agreement or otherwise) however and whenever created, arising or evidenced, whether direct or

indirect, joint or several, primary or secondary, absolute or conditional, due or to become due, and any and all renewal(s), extension(s), consolidation(s), and or replacement(s) thereof, in whole or in part, all of which are hereinafter referred to collectively as the "Secured Indebtedness." It is contemplated that the Secured Indebtedness may be, from time to time, reduced and thereafter increased or entirely extinguished and thereafter reincurred and it is expressly understood and agreed that (i) any such reduction or extinguishing of the Secured Indebtedness shall not in and of itself operate to terminate this deed's coverage of any future Secured Indebtedness, (ii) this deed shall remain in full force and effect to secure the Secured Indebtedness until such time as no Secured Indebtedness is outstanding, no agreement exists between Grantor and Grantee providing for Grantee's making loans or extending other financial accommodations to Grantor and Grantor notifies Grantee in writing that Grantor desires that Grantee terminate this deed, and (iii) Grantor waives any rights Grantor may have under Official Code of Georgia §§44-14-60 or 44-14-67 to a prior termination of this deed.

AND GRANTOR FURTHER COVENANTS AND AGREES WITH GRANTEE as follows:

1. **Payment of Secured Indebtedness.** Grantor shall pay to Grantee the Secured Indebtedness with interest thereon as in the Note, the Loan Documents and this deed provided.

2. **Payment of Other Items.** Grantor shall pay, when due and payable, (a) all taxes, assessments, general or special, and other charges levied on, or assessed, placed or made against the Property, this instrument or the Secured Indebtedness or any interest of the Grantee in the Property or the obligations secured hereby, (b) premiums on policies of fire and other hazard insurance covering the Property, as required in Paragraph 3 herein, (c) premiums on all collaterally pledged life insurance policies, if any, (d) premiums for mortgage insurance, if this deed and the Note are so insured, and (e) ground rents or other lease rentals, if any, payable by Grantor. Grantor shall promptly deliver to Grantee receipts showing payment in full of all of the above items. Upon notification from Grantee, Grantor shall pay to Grantee, together with and in addition to the payments of principal and interest payable under the Note, on the installment paying dates of the Note, until said Note is fully paid or until notification from Grantee to the contrary, an amount reasonably sufficient (as estimated by Grantee) to provide Grantee with funds to pay said taxes, assessments, insurance premiums, rents and other charges next due so that Grantee will have sufficient funds on hand to pay same thirty (30) days before the date on which they become past due. In no event shall Grantee be liable for any interest on any amount paid to it as herein required, and the money so received may be held and commingled with its own funds, pending payment or application thereof as herein provided. Grantor shall furnish to Grantee, at least thirty (30) days before the date on which the same will become past due, an official statement of the amount of said taxes, assessments, insurance premiums and rents next due, and Grantee shall pay said charges to the amount of the then unused credit therefor as and when they become severally due and payable. An official receipt therefor shall be conclusive evidence of such payment and of the validity of such charges. Grantee may, as its option, pay any of these charges when payable, either before or after they become past due, without notice, or make advances therefor in excess of the then amount of credit for said charges. The excess amount advanced shall be immediately due and payable to Grantee and bear interest at the rate as stated in the Note, which may vary from time to time from date of advancement. Grantee may apply credits held by it for the above charges, on account of any delinquent installments of principal or interest or any other payments maturing or due under this instrument, and the amount of credit existing at any time shall be reduced by the amount so paid or applied. The amount of the existing credit hereunder at the time of any transfer of the Property shall, without assignment thereof, inure to the benefit of the successor-owner of the Property and shall be applied under and subject to all of the provisions hereof. Upon payment in full of the Secured Indebtedness, the amount of any unused credit shall be paid over to the person entitled to receive it.

3. **Insurance.** (a) Grantor shall keep the Property insured for the benefit of Grantee against loss or damage by fire, lightning, windstorm, hail, explosion, riot, not attending a strike, civil commotion, aircraft, vehicles and smoke and such other hazards as Grantee may from time to time require, all in amounts approved by Grantee not exceeding 100% of full insurable value; all such insurance shall be and by companies approved by Grantee; and regardless of the types or amounts of insurance required and approved by Grantee. Grantor shall assign and deliver to Grantee, as collateral and further security for the payment of the Secured Indebtedness, all policies of insurance which insure against any loss or damage to the Property, with loss payable to Grantee, without contribution by Grantee, pursuant to the New York Standard or other mortgage clause satisfactory to Grantee. If Grantee, by reason of such insurance, receives any money for loss or damage, such amount may, at the option of Grantee, be retained and applied by Grantee toward payment of the Secured Indebtedness, or be paid over, wholly or in part, to Grantor for the repair or replacement of the Property or any part thereof, or for any other purpose or object satisfactory to Grantee, but Grantee shall not be obligated to see to the proper application of any amount paid over to Grantor.

(b) Not less than 10 days prior to the expiration date of each policy of insurance required of Grantor hereunder, and of each policy of insurance held as additional collateral to secure the Secured Indebtedness, Grantor shall deliver to Grantee a renewal policy or policies marked "premium paid" or accompanied by other evidence of payment satisfactory to Grantee.

(c) In the event of a foreclosure of this deed, the purchaser of the Property shall succeed to all the rights of Grantor, including any right to unearned premiums, in and to all policies of insurance assigned and delivered to Grantee, with respect to the Property.

4. **Maintenance and Inspection.** Grantor shall maintain the Property in good condition and repair, shall not commit or suffer any waste to the Property, and shall comply with, or cause to be complied with, all statutes, ordinances and requirements of any governmental authority relating to the Property or any part thereof. Grantor shall promptly repair, restore, replace or rebuild any part of the Property, now or hereafter encumbered by this deed, which may be affected by a proceeding of the character referred to in Paragraph 7 herein. No part of the Property, including but not limited to, any building, structure, parking lot, driveway, landscape scheme, timber or other ground improvement, now or hereafter conveyed as security by or pursuant to this deed, shall be removed, demolished or materially altered without the prior written consent of Grantee. Grantor shall complete, within a reasonable time, and pay for any building, structure or other improvement at any time in the process of construction on the Property. Grantor shall not initiate, join in or consent to any change in any private restrictive covenant, zoning ordinance or other public or private restrictions limiting or defining the uses which may be made of the Property or any part thereof. Grantee and any persons authorized by Grantee shall have the right to enter and inspect the Property at all reasonable times and access thereto shall be permitted for that purpose.

5. **Leases and Assignment of Rents.** Grantor shall faithfully perform the covenants of Grantor as lessor under any present and future leases, affecting all or any portion of the Property, and neither do nor neglect to do, nor permit to be done, anything which may cause the termination of said leases, or any of them, or which may diminish or impair their value, or the rents provided for therein, or the interest of Grantor or Grantee therein or thereunder. Grantor, without first obtaining the written consent of Grantee thereto, shall not (a) assign the rents, or any paid thereof, from the Property, (b) consent to the cancellation or surrender of any lease of the Property, or any part thereof, now existing or hereafter to be made, (c) modify any such lease so as to shorten the unexpired term thereof, or so as to decrease the amount of the rent payable thereunder, or (d) collect rents from the Property for more than one month in advance. Grantor shall procure and deliver to Grantee at the time of executing this deed, or at any time within thirty (30) days after notice and demand, estoppel letters or certificates from each lessee, tenant or occupant in possession of the Property, as required by, and in form and substance satisfactory to, Grantee and deliver to Grantee a recorded assignment of all of the lessor's interest in said leases, in form and substance satisfactory to Grantee (in addition to the conveyance hereunder), and proof of due service of copy of said assignment on each lessee, either personally or by prepaid registered mail, return receipt requested.

Grantor hereby absolutely assigns and transfers to Grantee all the rents, issues and profits of the Property, and hereby gives to and confers upon Grantee the right, power and authority to collect such rents, issues and profits. Grantor irrevocably appoints Grantee its true and lawful attorney-in-fact, at the option of Grantee at any time and from time to time, to demand, receive and enforce payment, to give receipts, releases and satisfactions, and to sue, in the name of Grantor or Grantee, for all such rents, issues and profits and apply the same to the Secured Indebtedness, provided, however, that Grantor shall have the right to collect such rents, issues and profits (but not more than one month in advance) prior to the occurrence of any event of default under this deed. The power and agency hereby granted are coupled with an interest and are irrevocable by death or otherwise.

6. **Additional Documentation.** Grantor shall execute and deliver (and pay the costs of preparation and recording thereof to Grantee and to any subsequent holder from time to time, upon demand, any further instrument or instruments, including, but not limited to, security deeds, security agreements, financing statements, assignments, and renewal and substitution notes and guarantees, so as to reaffirm, to correct and to perfect the evidence of the obligation hereby secured and the legal security title of Grantee to all or any part of the Property intended to be hereby conveyed, whether now conveyed, later substituted for, or acquired subsequent to the date of this deed and extensions or modifications thereof. Grantor, upon request, shall certify by a writing, duly acknowledged, to Grantee or to any proposed assignee of this deed, the amount of principal and interest then owing on the Secured Indebtedness and whether or not any offsets or defenses exist against the Secured Indebtedness, within 6 days in case the request is made personally, or within 10 days after the mailing of such request in case the request is made by mail.

7. **Condemnation.** In the event all or any part of the Property is taken by eminent domain by any public or quasi-public authority or corporation, or in the event all or any portion of the Property is purchased from Grantor under threat of such taking, then all the award or payment arising from said taking purchase shall be paid to Grantee. Grantee shall have the right to retain said award or payment and payment of the Secured Indebtedness, or to pay over said amount, in whole or in part, to Grantor. But Grantee shall not be obligated to see to the application of any amount paid over to Grantor. If prior to the receipt by Grantee of such award or payment, the Property shall have been sold on foreclosure of this deed, Grantee shall have the right to receive and retain such award or payment to the extent of any deficiency found to be due upon such sale, with legal interest thereon, whether or not a deficiency judgment on this deed or the debt hereby secured shall have been sought, recovered or denied, and of the reasonable costs, fees and expenses of the collection of such award or payment.

8 **Security Agreement.** Grantor hereby grants to Grantee a Security Interest in the fixtures, including without limitation in and all property of similar type or kind hereafter affixed to or incorporated in the Property and all accessions thereto for the purpose of securing the Secured Indebtedness. All covenants and obligations of Grantor contained herein relating to the Property shall be deemed to apply to the fixtures. This deed constitutes a Security Agreement as that term is used in the Uniform Commercial Code of Georgia

9 **Construction Mortgage.** This instrument shall be a construction mortgage to the extent that it secures an obligation incurred for the construction of an improvement on land including the acquisition cost of the land as the term "Construction Mortgage" is defined by the Uniform Commercial Code of Georgia

10 **Acceleration; Remedies.** Upon Grantor's breach of any covenant or agreement of Grantor in this deed, including the covenants to pay when due any sums under the Note secured by this deed, Grantee, at Grantee's option, may declare all of the sums secured by this deed to be immediately due and payable without demand or notice unless required by law or the Note and may invoke the power of sale and any other remedies permitted by applicable law. Grantee shall be entitled to collect in such proceeding all expenses of foreclosure, including, but not limited to, reasonable attorneys' fees and costs of documentary evidence, abstracts and title reports

In addition to the remedies provided on Grantor's breach of any covenant or agreement of the Grantor in this deed, Grantee may declare Grantor in default under this deed if any of the following events occur

(a) if Grantor fails to make the payments on the due date, (b) if a petition is filed or other proceedings started under the Federal Bankruptcy code or any state insolvency statute or if a receiver is appointed or writ or order of attachment, levy or judgment is issued against Grantor or the Property, assets or income that affects the ability to repay this Note in accordance with the terms of this Note or that adversely affects Grantee's security rights in the Property, (c) if Grantor permits any other lienholder to gain or appear to gain priority over Grantee, except whatever first mortgage, or deed to secure debt is outstanding on the Property, as Grantee agrees, at the time of recording of Grantee's Security Instrument to secure this Note, (d) if the Property is condemned or is totally or partially destroyed by fire or other hazards or any proceeding is commenced which materially affects Grantee's interest in the Property, (e) if the secured note for any prior mortgage, or deed to secure debt or lien on the real Property is in default by failure to pay principal, interest, charges, fees, escrow items or the commencement of a foreclosure proceeding or collection action that adversely affects Grantee's security interest in the Property, (f) if Grantee believes, in good faith, that Grantor has allowed the Property to deteriorate, committed waste or destructively used or failed to maintain the Property, (g) if Grantor commits fraud or misrepresents any information in the loan application, the Note or this deed at any time, (h) if Grantor fails to disclose any known environmental condition or hazard which adversely affects Grantee's security interest in the Property, (i) if Grantor fails to maintain adequate insurance coverage on the Property naming Grantee as insured, (j) if Grantor fails to pay taxes and assessments on the Property that results in a filing of a lien senior to Grantee's lien that impairs Grantee's security interest in the Property, (k) if Grantor transfers any interest or title to the Property without Grantee's consent as set forth in the terms of this deed or transfer of title occurs due to Grantor's death or by governmental action such a condemnation; or (l) Grantor writes Drafts in excess of the available credit limit or the maximum credit limit, Grantor understands Grantee will not terminate this deed and accelerate payment if such action is prohibited by federal law as of the date of this deed.

Then and thereupon:

(i) the Grantee may take possession of the Property without the appointment of receiver, or an application therefor, employ a managing agent of the Property and apply the same, either in its own name, or in the name of Grantor, and receive the rents, incomes, issues and profits of the Property and apply the same, after payment of all necessary charges and expenses, on account of the Secured Indebtedness and Grantor will transfer and assign to Grantee, in form satisfactory to Grantee, Grantor's lessor interest in any lease now or hereafter affecting the whole or any part of the Property, and

(ii) the Grantee may pay any sums in any form or any manner deemed expedient by Grantee to protect the security of this instrument or to cure any event of default other than payment of interest or principal on Secured Indebtedness, make any payment hereby authorized to be made according to any bill, statement or estimate furnished or procured from the appropriate public officer or the party claiming payment without inquiry into the accuracy or validity thereof, and the receipt of any such public officer or party in the hands of Grantee shall be conclusive evidence of the validity and amount of items so paid, in which event the amounts so paid, with interest thereon from the date of such payment at the rate as stated in the Note which may vary from time to time, shall be added to and become a part of the Security Indebtedness and be immediately due and payable to Grantee; and Grantee shall be subrogated to any encumbrance, lien, claim or demand, and to all the rights and securities for the payment thereof, paid or discharged with the principal sum secured hereby or by Grantee under the provisions hereof, and any such subrogation rights shall be additional and cumulative security to this instrument, and

(iii) the entire Secured Indebtedness shall immediately become due, payable and collectible, without notice to Grantor, regardless of maturity, and thereupon, Grantee may sell and dispose of the Property at public auction, at the usual place for conducting sales at the courthouse in the county where the Property or any part thereof may be, to the highest bidder for cash, first advertising the time, terms and place of such sale by publishing a notice thereof once a week for four consecutive weeks in a newspaper in which sheriff's advertisements are published in said county, all other notice being hereby waived by Grantor except as required by state law, and Grantee may thereupon execute and deliver to the purchaser at said sale a sufficient conveyance of the Property in fee simple, which conveyance may contain recitals as to the happening of the default upon which the execution of the power of sale, herein granted, depends, and said recitals shall be presumptive evidence that all preliminary acts prerequisite to said sale and deed were in all things duly complied with; and Grantee, its agents, representatives, successors or assigns, may bid and purchase at such sale; and Grantor hereby constitutes and appoints Grantee or its assigns, agent and attorney-in-fact to make such recitals, sale and conveyance, and all of the acts of such attorney-in-fact are hereby ratified, and Grantor agrees that such recitals shall be binding and conclusive upon Grantor and that the conveyance to be made by Grantee, or its assigns (and in the event of a deed in lieu of foreclosure, then as to such conveyance), shall be effectual to bar all right, title and interest, equity of redemption, including all statutory redemption, homestead, dower, courtesy and all other exemptions of Grantor, or its successors in interest, in and to said Property; and Grantee, or its assigns, shall collect the proceeds of such sale, reserving therefrom all unpaid Secured Indebtedness with interest then due thereon, including all amounts advanced by Grantee for taxes, assessments, fire insurance premiums and other charges, with interest at the rate as stated in the Note, which may vary from time to time thereon from date of payment, together with all costs and charges for advertising, and commissions for selling the Property, and 15% of the aggregate amount due, as attorney's fees, and pay over any surplus to Grantor (in the event of deficiency Grantor shall immediately on demand from Grantee pay over to Grantee, or its nominee, such deficiency), and Grantor agrees that possession of the Property during the existence of the Secured Indebtedness by Grantor, or any person claiming under Grantor, shall be that of tenant under Grantee, or its assigns, and, in case of a sale, as herein provided, Grantor or any person in possession under Grantor shall then become and be tenants holding over, and shall forthwith deliver possession to the purchaser at such sale, or be summarily dispossessed in accordance with the provisions of law applicable to tenants holding over, the power and agency hereby granted are coupled with an interest and are irrevocable by death or otherwise, and are in addition to any and all other remedies which Grantee may have at law or in equity

Grantee, in any action to foreclose this deed, or upon any event of default, may apply for the appointment of a receiver of the rents and profits or of the Property or both without notice, and shall be entitled to the appointment of such a receiver as a matter of right, without consideration of the value of the Property as security for the amounts due the Grantee, or the solvency of any person or corporation liable for the payment of such amounts.

In case of any sale under this deed by virtue of the exercise of power herein granted, or pursuant to any order in any judicial proceedings or otherwise, the Property or any part thereof, may be sold in one parcel and as entirety, or in such parcels, manner or order as Grantee in its sole discretion may elect, and one or more exercises of the powers herein granted shall not extinguish or exhaust the power unless the entire Property are sold or the Secured Indebtedness paid in full.

11 **Transfer of the Property; Assumption.** Pursuant to applicable law, if all or any part of the Property or an interest therein is sold or transferred by Grantor without Grantee's prior written consent, Grantee may, at Grantee's option, and subject to applicable law, declare all the sums secured by this deed to be immediately due and payable. Grantee shall have waived such option to accelerate if, prior to the sale or transfer, Grantee and the person to whom the Property is to be sold or transferred reach agreement in writing that the credit of such person is satisfactory to Grantee, that the interest payable on the sums secured by this deed shall be at such rate as Grantee shall request, and that a transfer fee in such amount as Grantee shall request shall be paid. If Grantee has waived the option to accelerate provided in this Paragraph, and if Grantor's successor in interest has executed a written assumption agreement accepted in writing by Grantee, Grantee shall release Grantor from all obligations under this deed and the Note. This option shall not be exercised by Grantee if exercise is prohibited by federal law as of the date of this deed.

If Grantee exercises such option to accelerate, Grantee shall mail Grantor notice of acceleration by certified mail, addressed to the address of Grantor appearing in the records of Grantee. Such notice shall provide a period of not less than 30 days from the date the notice is mailed within which Grantor may pay the sum declared due. If Grantor fails to pay such sum prior to expiration of such period, Grantee may, without further notice or demand on Grantor, invoke any remedies permitted under the terms hereof.

12 **Waiver of Homestead; Time of the Essence.** Grantor for himself and family, hereby waives and renounces all homestead and exemption rights provided for by the Constitution and Laws of the United States or the State of Georgia in and to the Property as against the collection of the Secured Indebtedness, or any part thereof, and Grantor agrees that where, by the terms of this deed, the Note or any of the Loan

Documents a day is named or a time fixed for the payment of any sum of money or the performance of any agreement, the time stated enters into the considerations and is of the essence to the whole contract.

13. **Grantee's Right to Sue.** Grantee shall have the right from time to time to sue for any sums, whether interest, principal or any installment of either or both, taxes, penalties, or any other sums required to be paid under the terms of the Note, this deed or any of the Loan Documents, as the same become due, without regard to whether or not all of the Secured Indebtedness shall be due on demand, and without prejudice to the right of Grantee thereafter to enforce any appropriate remedy against the Grantor, including an action of foreclosure, or any other action, for a default or defaults by Grantor existing at the time such earlier action was commenced.

14. **Rights Cumulative.** The rights of Grantee granted and arising under the clauses and covenants contained in this deed and the Note, and any of the Loan Documents, shall be separate, distinct and cumulative of other powers and rights herein granted and all other rights which Grantee may have in law or equity, and none of them shall be in exclusion of the others, and all of them are cumulative to the remedies for collection of indebtedness, enforcement of rights under security deeds, and preservation of security as provided at law. No act of Grantee shall be construed as an election to proceed under any one provision herein or under the Note to the exclusion of any other provision, or an election of remedies to the bar of any other remedy allowed at law or in equity, anything herein or otherwise to the contrary notwithstanding.

In case of a conflict between the terms of the Note and this deed governing remedies on default or termination of advances, the priority of controlling terms shall be the Note and then this deed.

15. **Notice.** Every provision for notice and demand or request shall be deemed fulfilled by written notice and demand or request personally served on one or more of the persons who shall at the time hold the record title to the Property, or on their heirs or successors, or mailed by depositing it in the United States mail, certified mail, return receipt requested, with proper postage affixed, (a) addressed to such person or persons, or their heirs or successors, at his, their or its address last known to Grantee or (b) addressed to the street address of the Property hereby conveyed. Any notice to Lender shall be given by first class mail to Lender's address stated herein or to such other address as Lender may designate by notice to Borrower as provided herein. Any notice to be provided pursuant to this deed shall be deemed to have been given to Borrower when given in the manner designated herein and to Lender when it is in fact received by Lender at Lender's address stated herein or at such other address as Lender may designate by notice to Borrower.

16. **No Waiver.** Any indulgence or departure at any time by the Grantee from any of the provisions hereof, or of any obligation hereby secured, shall not modify the same or relate to the future or waive future compliance therewith by the Grantor.

17. **Definitions.** The words "Grantor" and "Grantee" whenever used herein shall include all individuals, corporations (and if a corporation, it officers, employees, agents or attorneys) and any and all other persons or entities, and the respective heirs, executors, administrators, legal representatives, successors and assigns of the parties hereto, and all those holding under either of them, and the pronouns used herein shall include, when appropriate, either gender and both singular and plural, and the word "Note" shall also include one or more notes, or amendments and modifications and the grammatical construction of sentences shall conform thereto. If more than one party shall execute this deed, the term "Grantor" shall mean all parties signing, and each of them, and each agreement, obligation and Secured Indebtedness of the Grantor shall be and mean the several as well as joint undertaking of each of them.

18. **Severability.** The parties agree that the provisions of this security deed are severable, and in the event any clause, phrase or paragraph shall be declared by a court of competent jurisdiction to be invalid or unenforceable, then the parties declare that the remaining clauses, phrases and paragraphs of this security deed shall remain in full force and effect.

19. **Release.** When the balance of all outstanding sums secured by this deed including outstanding drafts, finance charges or other charges, if any, is zero, the Grantee shall, upon request of the Grantor, release this deed without a charge to the Grantor, however Grantor will pay any costs of recordation, if any, of the satisfaction or release. Absent a request from the Grantor, this deed shall remain in full force and effect for the term set forth above. Grantee, at Grantee's option, may allow a partial release of the Property on terms acceptable to Grantee and Grantee may charge a release fee.

20. **Successors and Assigns Bound; Joint and Several Liability; Co-signers.** The covenants and agreements of this deed shall bind and benefit the successors and assigns of Grantee and Grantor, subject to the provisions of paragraph 10. Grantor's covenants and agreements shall be joint and several. Any Grantor who co-signs this deed but does not execute the Note: (a) is co-signing this deed only to grant and convey that Grantor's interest in the Property under the terms of this deed; (b) is not personally obligated to pay the sums secured by this deed; and (c) agrees that Grantee and any other Grantor may agree to extend, modify, forbear or make any accommodations with regard to the terms of this deed or the Note without that Grantor's consent.

21. **Termination of Future Advances.** Grantor acknowledges that Grantee may cancel its obligation to make any future credit extensions or further advances under the Note in accordance with the provisions of the Note at any time by giving written notice to the Grantor. Grantor acknowledges that its obligation(s) under the Note will continue until all sums owed by Grantor to Grantee have been paid.

REQUEST FOR NOTICE OF DEFAULT AND FORECLOSURE UNDER SUPERIOR MORTGAGES OR DEEDS TO SECURE DEBT

Borrower and Lender request the holder of any mortgage, deed of trust, deed to secure debt or other encumbrance with a lien which has priority over this Deed to Secure Debt to give Notice to Lender, at Lender's address set forth on page one of this Deed to Secure Debt, of any default under the superior encumbrance and of any sale or other foreclosure action.

IN WITNESS WHEREOF, the Borrower has caused this Deed to Secure Debt to be executed under seal by each Borrower adopting as his or her seal, the word (SEAL) appearing beside his or her signature for purposes of executing and delivering this instrument under seal.

Witness _____ Albert S. Bonner _____ (SEAL)

Witness _____ June W. Bonner _____ (SEAL)

Notary Public _____ _____ (SEAL)

NOTARY PUBLIC, RICHMOND COUNTY, GEORGIA

My commission expires ~~My Commission Expires September 20, 1999~~ _____ (SEAL)

CANCELLATION

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 15 SEP 1997 AT 10:43AM
RECORDED 15 SEP 1997

STATE OF GEORGIA

COUNTY OF _____

This indebtedness to secure which the within Deed to Secure Debt, Assignment of Rents and Security Agreement was given having been satisfied, said instrument is hereby canceled and terminated and the Clerk of the Superior Court of _____ County, Georgia, is hereby authorized and instructed to enter this cancellation and mark said deed satisfied on the records of said County.

Witness the hand and seal of the undersigned, this _____ day of _____, 19 _____

EXECUTED IN THE PRESENCE OF FIRST UNION NATIONAL BANK OF GEORGIA

Witness _____ By: _____ Vice-President

Notary Public _____ Attest: _____

MY COMMISSION EXPIRES _____

PREPARED BY: O. FRANKLIN ASKIN, JR.
RECORD & RETURN TO:
O. FRANKLIN ASKIN, JR.
2913 PROFESSIONAL PARKWAY
AUGUSTA, GEORGIA 3090
706-860-9266
FILE #97- 700

TITLE NOT EXAMINED
WARRANTY DEED

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ Ø
Date 9-15-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA }
COUNTY OF RICHMOND }

ORIGINAL REEL RECORDED
REEL 569 PAGE 2265
WIP ID: 326553

THIS INDENTURE, made this 28th day of August, 1997, between Jerry Saul of Richmond County, Georgia, as Grantor and SUZANNE S. SAUL
409 Shallowford Circle
Augusta, Georgia of Richmond County, Georgia, as Grantee

WITNESSETH: that said Grantor for and in consideration of the sum of One Dollar ($1.00) and love and affection for his wife, in hand paid at and before the sealing and delivery of these presents, receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell and convey unto the said Grantee, her heirs and assigns, ALL OF HIS UNDIVIDED INTEREST IN AND TO THE FOLLOWING DESCRIBED PROPERTY, TO-WIT:

ALL THAT LOT OR PARCEL OF LAND, with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as LOT 11, BLOCK B, CROFTON SUBDIVISION, as shown on a plat recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia in Realty Reel 43, pages 1844-1851. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

SAID property is conveyed subject to Protective Covenants recorded in said Clerk's Office in Realty Reel 43, pages 1852-1854; and also subject to any and all easements and restrictions of record.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging or anywise appertaining, to the only proper use, benefit and behoof of the Grantee, its heirs and assigns, forever, in FEE SIMPLE.

AND the Grantor, for its heirs, executors and administrators, will warrant and forever defend the right and title to the above described property unto the said Grantee, its heirs and assigns, against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said Grantors have hereunto set their hands and seals the day and year above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:
Unofficial Witness
NOTARY PUBLIC
My Commission Expires:
SEAL
Notary Public, Richmond County, Georgia
My Commission Expires Jan. 24, 2000

TITLE NOT EXAMINED
Jerry Saul L.S.
Jerry Saul
L.S.

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 15 SEP 1997 AT 10:43AM
RECORDED 15 SEP 1997

PREPARED BY: O. FRANKLIN ASKIN, JR.
RECORD & RETURN TO:
O. FRANKLIN ASKIN, JR.
2913 PROFESSIONAL PARK
AUGUSTA, GEORGIA 30907
706-860-9266
FILE #97-677

RICHMOND COUNTY, GEORGIA WARRANTY DEED
Real Estate Transfer Tax
Paid $ 65.00
Date 9-15-97
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 569 PAGE 2266
WIP ID: 326554

THIS INDENTURE, made this 8th day of September, 1997, between Jean Christophe P. Kidd and Kristen L. Kidd f/k/a Kristen E. Larson of Richmond County, Georgia, as Grantor and
THOMAS G. ROPER, BARBARA B. ROPER, AND DONNA R. ROPER CANADA
5832 E 98th Lane SW
Ocala, FL 34481 of _____ County, _____, as Grantee

WITNESSETH: that said Grantor for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable considerations, in hand paid at and before the sealing and delivery of these presents, receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell and convey unto the said Grantee, its heirs and assigns, the following described property, to-wit:

ALL THAT LOT OR PARCEL OF LAND, with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as LOT 6, REID PLACE, as shown on a plat recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia in Realty Reel 166, page 1446. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

SAID property is conveyed subject to Protective Covenants recorded in said Clerk's Office in Realty Reel 173, page 786; and also subject to any and all easements and restrictions of record.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging or anywise appertaining, to the only proper use, benefit and behoof of the Grantee, its heirs and assigns, forever, in FEE SIMPLE.

AND the Grantor, for its heirs, executors and administrators, will warrant and forever defend the right and title to the above described property unto the said Grantee, its heirs and assigns, against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said Grantors have hereunto set their hands and seals the day and year above written.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

Unofficial Witness

NOTARY PUBLIC
My Commission Expires:
SEAL

Jean Christophe P. Kidd L.S.
Jean Christophe P. Kidd

Kristen L. Kidd L.S.
Kristen L. Kidd f/k/a
Kristen E. Larson

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 15 SEP 1997 AT 10:45AM
RECORDED 15 SEP 1997

PLEASE RETURN TO: J. Noel Schwoers, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

718 Taylor Street
907 King Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 32.60
Date 9-12-97
Elaine C. Williams
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between PINK GREEN, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the southwest intersection of Taylor and King Streets, being known and designated as Lot No. 4, Block 54A, in Ward 2 (formerly Lot 4, Block 69 in Ward 2). Said property is bounded, now or formerly, as follows: on the North, by Taylor Street; on the South, by Lot 6, Block 54, in Ward 2 (formerly Lot 5, Block 60 in Ward 2); on the East, by King Street; and on the West, by Lot 20, Block 54A, in Ward 2 (formerly Lot 3, Block 60, in Ward 2).

BEING a portion of the same property conveyed to Pink Green by Warranty Deed for Ways and Means for the Blind, Inc., dated August 1, 1972, and recorded in Realty Reel 8, pages 2476-2481, in the Office of the Clerk of Superior Court of Richmond County, Georgia

SAID property is known and designated as 718 Taylor Street and 907 King Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2078
WIP ID: 326457

party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set his hand and seal the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Pink Green (L.S.)
Pink Green

Notary Public, Richmond County, Georgia
My commission expires: 8-25-2000
(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:23PM
RECORDED 12 SEP 1997

P.H.
J.B.

PLEASE RETURN TO: J. Noel Schwoon, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

717 Taylor Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 25.50
Date 4-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between PINK GREEN AND TERRIE J. GREEN, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the north side of Taylor Street, and having a frontage of 39.4 feet, more or less, on Taylor Street, and extending back between parallel lines a distance of 111.5 feet, more or less. Said property is bounded, now or formerly, as follows: On the North, by property now or formerly of Mustin; on the East, by property now or formerly of Moore; on the South, by Taylor Street; and on the West by property now or formerly of Warren Estate. The improvements on said property are known as 717-719 Taylor Street.

THIS being a portion of the property conveyed to Pink Green and Terri J. Green part by Warranty Deed dated July 2, 1981, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 140, pages 1958-1961.

SAID property is known and designated as 717 Taylor Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2080
WIP ID: 326458

party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Pink Green (L.S.)
Pink Green

Notary Public, Richmond County, Georgia

Terrie J. Green (L.S.)
Terrie J. Green

My commission expires: 8-25-2000

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 12 SEP 1997 AT 02:24PM
RECORDED 12 SEP 1997

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

713 Eighth Street

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 10.70
Date 9-12-97
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 11th day of September, 1997 between VIC HERRIN AND EDITH L. HERNDON, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that parcel, piece or lot of land, together with the improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the west side of Eighth Street (Jackson Street) between Fenwick and Calhoun Streets, fronting a distance of 40 feet, more or less, on said Eighth Street (Jackson Street), extending back therefrom of equal width a distance of 130 feet, more or less, and bounded, now or formerly, as follows: On the North and South, by property now or formerly of Daniel Galvan; on the East, by Eighth Street (Jackson Street); and on the West, by property now or formerly of E. W. Hancock.

BEING a portion of the same property conveyed to Vic Herrin and Edith L. Herndon by Warranty Deed of First Railroad & Banking Company of Georgia dated March 25, 1987, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 256, pages 1607-1609.

SAID property is known and designated as 713 Eighth Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

V.H. ELH

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the

ORIGINAL REEL RECORDED
REEL 569 PAGE 2082
WIP ID 326459

PLEASE RETURN TO: David E. Hudson
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

98 APR 16 PM 12:30

727 Taylor Street
Parcel Two

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 592 PAGE 1723
MIP ID: 353853

THIS INDENTURE, made this 15th day of April, 1998, between TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH and the TRUSTEES OF TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, along with OTHAL H. LAREY, Presiding Bishop of the Sixth Episcopal District of The Christian Methodist Episcopal Church, successor in interest to The Trustees of Trinity Christian Methodist Church and Trinity Christian Methodist Church, collectively as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

All that tract or parcel of land, with any improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, being on the west side of Corduroy Alley, also known as King Street. Said lot is located on a square bounded by Calhoun, Taylor, McIntosh and Jackson Streets. Said lot being the eastern one-half of Lot No. 43 on a map of the City of Augusta prepared by William Phillips in 1955. Said lot is bounded, now or formerly, as follows: On the North, by lot now or formerly of Edward O'Donnell; on the South by Lot designated as "Trinity Church" on said map; on the East by King Street; and on the West, by lot now or formerly of James Purcell. Said lot runs back between parallel lines a distance of 140 feet 9 ½ inches, more or less.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 10.00
Date 4-16-98
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

Signed, sealed and delivered Bert Thomas + Roscoe Brown in our presence in Richmond County, Georgia

Witness

Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Richmond County, Georgia My Commission Expires Jan. 3, 2001

(NOTARY SEAL)

TRUSTEES OF TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, successors in interest to The Trustees of Trinity Christian Methodist Church

By: Bert T. Thomas, as Trustee

By Roscoe Brown, as Trustee

Signed, sealed and delivered Douglas McKenzie + Roy Jones in our presence in Richmond County, Georgia

Witness

Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Richmond County, Georgia My Commission Expires Jan. 3, 2001

(NOTARY SEAL)

By: Douglas McKenzie, As Trustee

By Roy Jones, as Trustee

John Tillman, Jr.
& Roy Jones

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Witness

By: John Tillman, Jr., as Trustee

Notary Public, Richmond County, Georgia
Notary Public, Richmond County, Georgia
My commission expires: My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

By: Roy Jones, as Trustee

Jesse Norman

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Witness

By: Jessie Norman, Sr., As Trustee

Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

Rudolph Jolly + Napoleon Clairborn

By: Napoleon Clairborn
Napoleon Clairborn

Signed, sealed and delivered in our presence in Richmond County, Georgia

Susan D Barnett
Witness

By: Rudolph Jolly
Rudolph Jolly, As Trustee

Sherry S Mitchell
Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Richmond County, Georgia My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

Signed, sealed and delivered in our presence in Richmond County, Georgia

TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, successor in interest to Trinity Christian Methodist Church

Susan D Barnett
Witness

By: Bert T. Thomas
Bert T. Thomas, As Trustee

Sherry S Mitchell
Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Richmond County, Georgia My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

Douglas McKenzie
~~Bryant Thomas~~ +
Roscoe Brown

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Susan D Barrett
Witness

By: Douglas McKenzie
Douglas McKenzie, As Trustee

Sherry G. Hill
Notary Public, Richmond County, Georgia
Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001
My commission expires:
(NOTARY SEAL)

By Roscoe Brown
Roscoe Brown, as
Trustee

John Tillman, Roy
Jones

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Susan D Barrett
Witness

By: John Tillman Jr.
John Tillman, Jr., As Trustee

Sherry G. Hill
Notary Public, Richmond County, Georgia
Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001
My commission expires:
(NOTARY SEAL)

By Roy Jones
Roy Jones, as
Trustee

REEL 592 PAGE 1716

PLEASE RETURN TO: David E. Hudson
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

98 APR 16 PM 12: 30

ELAINE C. JOHNSON
CLERK SUPERIOR COURT

731 Taylor Street
(318 8th Street)
Parcel One

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 592 PAGE 1716
MIP ID: 353852

THIS INDENTURE, made this 15th day of April, 1998 between the TRUSTEES OF TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH and the TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, along with OTHAL H. LAKEY, Presiding Bishop of the Sixth Episcopal District of The Christian Methodist Episcopal Church, successors in interest to the Trustees of the Colored Methodist Episcopal Church in America for Trinity Church in Augusta, Georgia and the Colored Methodist Episcopal Church in America for Trinity Church in Augusta, Georgia, collectively as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that tract or parcel of land, with any improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, being known and described on a plat of said City prepared by William Phillips in 1855 as "Trinity Church" Lot, bounded now or formerly as follows: On the North, by Lots now or formerly of James Purcell and C. C. Hudson; on the East, by an alley thirty-five feet wide; on the South, by Taylor Street; and on the West, by Jackson Street, having a front of 157 feet on Jackson Street and running back to the said thirty-five foot alley (sometimes known as Corduroy Alley) 285 feet, more or less, as will be seen by reference to said plat of said "Trinity Church" Lot, which is attached to that certain instrument dated July 1, 1874, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia in Realty Book 3C, Page 218.

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 3231.00
Date 4-16-98
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set their hands and seals the day and year first above written.

by Bert Thomas and Roscoe Brown

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

Notary Public, Richmond County, Georgia

Notary Public, Richmond County, Georgia
My Commission Expires June 5, 1991

My commission expires:

(NOTARY SEAL)

TRUSTEES OF TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, successors in interest to the Trustees of the Colored Methodist Episcopal Church in America for Trinity Church in Augusta, Georgia

By: Bert T. Thomas

~~Bert~~ T. Thomas, as Trustee
Bert

By: Roscoe Brown

Roscoe Brown, as Trustee

by Douglas McKenzie and Roy Jones

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

By: Douglas McKenzie

Douglas McKenzie, As Trustee

Notary Public, Richmond County, Georgia

Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001

My commission expires:

(NOTARY SEAL)

By: Roy Jones

Roy Jones, as Trustee

John Tillman, Jr.

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

By: John Tillman, Jr.

John Tillman, Jr. as Trustee

Notary Public, Richmond County, Georgia

Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001

My commission expires:

(NOTARY SEAL)

Jessie Norman, Sr. and
Napoleon Claybourn

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Susan D Barrett
Witness

By: Jesse L. Norman
Jessie Norman, Sr. As Trustee

Shirley Hill
Notary Public, Richmond County,
Georgia Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001
My commission expires:

(NOTARY SEAL)

By: Napoleon Claybourn
Napoleon Claybourn

Rudolph Jolly

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Susan D Barrett
Witness

By: Rudolph Jolly
Rudolph Jolly, As Trustee

Shirley Hill
Notary Public, Richmond County,
Georgia
Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001
My commission expires:

(NOTARY SEAL)

by Bert Thomas and Roscoe Brown

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

Notary Public, Richmond County, Georgia

My commission expires

Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

TRINITY CHRISTIAN METHODIST EPISCOPAL CHURCH, successor in interest to the Colored Methodist Episcopal Church in America for Trinity Church in Augusta, Georgia

By:

Bert T. Thomas, As Trustee

By:

Roscoe Brown, as Trustee

by Douglas McKenzie and Ray Jones and Napoleon Clayburn

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

Notary Public, Richmond County, Georgia

My commission expires

Notary Public, Richmond County, Georgia
My Commission Expires Jan. 9, 2001

(NOTARY SEAL)

By:

Douglas McKenzie, As Trustee

By:

Ray Jones, as Trustee

By:

Napoleon Clayburn, as Trustee

Book 01050:2577 Augusta - Richmond County
2006021639 04/24/2006 16:13:26.00
$16.00 AFFIDAVIT
2006021639 Augusta - Richmond County

AFTER RECORDING RETURN TO:
Carol R. Geiger
McKenna Long & Aldridge LLP
303 Peachtree Street, Suite 5300
Atlanta, Georgia 30308

AFFIDAVIT

THIS AFFIDAVIT is made this 14th day of April, 2006, by **ATLANTA GAS LIGHT COMPANY** a Georgia corporation (hereinafter referred to as "Declarant").

WITNESSETH:

WHEREAS, Declarant owns the property more particularly described as Parcel 047-3-225-00-0 as recorded in the Augusta - Richmond County Deed Book 731, Page 1407(the "Property"); and

WHEREAS, the Property has been remediated pursuant to the Georgia Hazardous Site Inventory and pursuant to the Georgia Hazardous Site Response Act ("HSRA") (O.C.G.A. § 12-8-96 et seq.); and

WHEREAS, HSRA requires that this Affidavit be made and recorded as specified in that Act;

NOW, THEREFORE, Declarant does hereby state and aver as follows:

This property was listed on the state's hazardous site inventory and was designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. However, the Property has since been designated as needing no further action and has been removed from the state's hazardous site inventory. A copy of that determination is attached as Exhibit "A" hereto. The notice requirements of O.C.G.A. § 12-8-97 no longer apply to this property and prior notices given under this code

section are no longer in effect. The owner of the Property or the Georgia Environmental Protection Division may be contacted for further information concerning this property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

IN WITNESS WHEREOF, Declarant has signed and sealed this Affidavit, on the day, month, and year first above written.

Signed, sealed and delivered
in the presence of:

Connie C. Harris
Notary Public

(Notary Public)

My Commission Expires:
3-17-2010

CONNIE C. HARRIS
NOTARY
PUBLIC
Exp. Mar. 17, 2010
ROCKDALE COUNTY, GA

DECLARANT
ATLANTA GAS LIGHT COMPANY
a Georgia Corporation

By: Jeff Brown

Name: Jeffrey P. Brown

Title: Vice President, Legal

Book 01050:2579 Augusta - Richmond County
2006021639 04/24/2006 16:13:26.00

Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, S.E., Suite 1154, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
404/656-7802

COPY

February 24, 2006

VIA CERTIFIED MAIL
Return Receipt Requested

Mr. Ira Pearl
Vice President
AGL Resources
P.O. Box 4569
Atlanta, Georgia 30302-4569

Re: On-Site Type 5 Property Certification
Atlanta Gas Light Co - Augusta MGP
Tax ID No. PIN 047-3-225-00-0
HSI #10132

Dear Mr. Pearl:

The Georgia Environmental Protection Division (EPD) has completed its review of Atlanta Gas Light Company's (AGLC) Corrective Action Closure Report and Compliance Status Report Northern Parcel Operable Units 1 and 2 (Closure Report) received October 24, 2005 and Compliance Status Certification submitted on February 9, 2006. AGLC has certified the Northern Parcel is in compliance with the Type 5 Risk Reduction Standards (RRS) of the Rules for Hazardous Site Response (Rules). EPD approves the Closure Report and concurs with your certification. According to AGLC, the Tax I.D. Number for the Type 5 parcel is 047-3-225-00-0. The following items remain to be addressed by AGLC within 60 days of the date of this letter:

1. If applicable, existing property notices identified in Section 391-3-19-.08 of the Rules (i.e. restrictive covenant and affidavit) must be replaced with revised notices. Copies of the replacement documents must be submitted to EPD.
2. Place the permanent markers called for in 391-3-19-.08(7)(d).
3. A Continuing Action Monitoring Plan for all parcels meeting non-residential risk reduction standards (i.e. Types 3-5) must be submitted to EPD, and should include all specific continuing monitoring activities that will be performed for the entire site.

Enclosed is a copy of the public notice that EPD intends to publish as soon as practicable in the Augusta Chronicle. If you have any questions, please contact John Fonk at (404) 657-8671.

Sincerely,

Mark Smith
Chief
Hazardous Waste Management Branch

Enclosure

Exhibit "A"

Book 01050:2580 Augusta - Richmond County
2006021639 04/24/2006 16:13:26.00

PUBLIC NOTICE OF EPD'S CONCURRENCE WITH CERTIFICATE OF COMPLIANCE SUBMITTED FOR SITE ON THE HAZARDOUS SITE INVENTORY

This public notice is to inform all interested parties that the Georgia Environmental Protection Division (EPD) has completed its review of the Closure Report/Compliance Status Report received on October 24, 2005 and Certification of Compliance received on February 9, 2006 for the Northern Parcel of the Atlanta Gas Light (AGLC) – Augusta Manufactured Gas Plant (MGP) Site. The Northern Parcel is located adjacent to the intersection of Eighth Street and Walton Way in Augusta, Richmond County, Georgia. The site is listed on the Hazardous Site Inventory (HSI) as No. 10132. EPD concurs with AGLC's determination that parcel ID No. 047-3-225-00-0 is in compliance with the Type 5 Risk Reduction Standards of Rule 391-3-19-.07 of the Rules for Hazardous Site Response. This certification does not include adjacent parcels or the Third Level Canal, which will be addressed separately.

Additional information about this site may be obtained by calling John Fonk of EPD at (404) 656-7802.

Filed in this office:
Augusta - Richmond County
04/24/2006 16:13:26.00
Elaine C. Johnson
Clerk of Superior Court

Book 01050:2581 Augusta - Richmond County
2006021640 04/24/2006 16:20:35.00
$84.00 SECURITY DEED
2006021640 Augusta - Richmond County
Intangible Tax: $60.00

WHEN RECORDED MAIL TO:

NUNNALLY, STELLA H.

Record and Return To:
United General Title Ins
Fiserv-600A N.JohnRodes Blv
Melbourne, FL 32934

SUNTRUST 20060871438480

50508974100000662DOT

SECURITY DEED

MAXIMUM LIEN. The lien of this Security Deed shall not exceed at any one time $20,000.00.

THIS SECURITY DEED dated April 4, 2006, is made and executed between STELLA H NUNNALLY, whose address is 1030 PHILLIPS ST, AUGUSTA, GA 309012722 (referred to below as "Grantor") and SunTrust Bank, whose address is 1945 The Exchange - Suite 250, Atlanta, GA 30339 (referred to below as "Lender").

GRANT OF SECURITY DEED. FOR AND IN CONSIDERATION of the financial accommodations to Grantor by Lender resulting in the obligation which is hereinafter more particularly described, and in order to secure that obligation, Grantor hereby grants, bargains, conveys, transfers, assigns and sells to Lender all of Grantor's right, title, and interest in and to the following described real property: **The Real Property is located in RICHMOND County, State of Georgia and is described as follows:**

See the exhibit or other description document which is attached to this Security Deed and made a part of this Security Deed as if fully set forth herein.

TOGETHER WITH ANY AND ALL of the following: (i) all buildings, structures and Improvements now or hereafter located on the real property or on any part or parcel thereof and all fixtures affixed or attached, actually or constructively, thereto; (ii) all and singular the tenements, hereditaments, easements and appurtenances belonging thereunto or in any wise appertaining thereto and the reversion and reversions, remainder or remainders thereof; (iii) all Rents accruing therefrom, whether now or hereafter due; (iv) all accounts and contract rights now or hereafter arising in connection with any part or parcel thereof or any buildings, structures or improvements now or hereafter located thereon, including without limitation all accounts and contract rights in and to all leases or undertakings to lease now or hereafter affecting the land or any buildings, structures, or improvements thereon; (v) all minerals, flowers, crops, trees, timber, shrubbery and other emblements now or hereafter located thereon or thereunder or on or under any part or parcel thereof; (vi) all estates, rights, title and interest therein, or in any part or parcel thereof; (vii) all equipment, machinery, apparatus, fittings, fixtures, furniture, furnishings, mobile homes, modular homes and all personal property of every kind or description whatsoever now or hereafter located thereon, or in or on the buildings, structures and Improvements thereon, and used in connection with the operation and maintenance thereof, and all additions thereto and replacements thereof; and (viii) all building materials, supplies, goods and equipment delivered thereto and placed thereon for the purpose of being affixed to or installed or incorporated or otherwise used in the buildings, structures or other improvements now or hereafter located thereon or any part or parcel thereof.

The Real Property or its address is commonly known as 1030 PHILLIPS ST, AUGUSTA, GA 309012722.

REVOLVING LINE OF CREDIT. This Security Deed secures the Indebtedness including, without limitation, a revolving line of credit, which obligates Lender to make advances to Grantor up to the maximum principal indebtedness of $20,000.00 so long as Grantor complies with all the terms of the Credit Agreement. Such advances may be made, repaid, and remade from time to time, subject to the limitation that the total outstanding balance owing at any one time, not including finance charges on such balance at a fixed or variable rate or sum as provided in the Credit Agreement, any temporary overages, other charges, and any amounts expended or advanced as provided in either the Indebtedness paragraph or this paragraph, shall not exceed the Credit Limit as provided in the Credit Agreement. It is the intention of Grantor and Lender that this Security Deed secures the balance outstanding under the Credit Agreement from time to time from zero up to the Credit Limit as provided in the Credit Agreement and any intermediate balance. The maturity date of the Credit Agreement is April 4, 2026.

THIS SECURITY DEED, INCLUDING THE ASSIGNMENT OF RENTS AND THE SECURITY INTEREST IN THE RENTS AND PERSONAL PROPERTY, IS GIVEN TO SECURE (A) PAYMENT OF THE INDEBTEDNESS AND (B) PERFORMANCE OF EACH OF GRANTOR'S AGREEMENTS AND OBLIGATIONS UNDER THE CREDIT AGREEMENT, THE RELATED DOCUMENTS, AND THIS SECURITY DEED. IT IS THE INTENTION OF GRANTOR AND LENDER TO CREATE A PERPETUAL OR INDEFINITE SECURITY INTEREST IN THE REAL PROPERTY DESCRIBED IN THIS SECURITY DEED PURSUANT TO O.C.G.A. 44-14-80 AND TO AGREE THAT TITLE SHALL NOT REVERT TO GRANTOR FOR A PERIOD OF SEVEN (7) YEARS FROM THE MATURITY DATE OF THE DEBT OR DEBTS SECURED BY THIS SECURITY DEED. HOWEVER, NOTHING IN THIS PARAGRAPH WILL IMPAIR LENDER'S RIGHTS TO COLLECTION OF THE INDEBTEDNESS AND FORECLOSURE OF THE SECURITY INTEREST IF THE INDEBTEDNESS IS NOT REPAID WHEN DUE. THIS SECURITY DEED IS GIVEN AND ACCEPTED ON THE FOLLOWING TERMS:

PAYMENT AND PERFORMANCE. Except as otherwise provided in this Security Deed, Grantor shall pay to Lender all amounts secured by this Security Deed as they become due and shall strictly perform all of Grantor's obligations under this Security Deed and the Related Documents.

POSSESSION AND MAINTENANCE OF THE PROPERTY. Grantor agrees that Grantor's possession and use of the Property shall be governed by the following provisions:

Possession and Use. Until the occurrence of an Event of Default, Grantor may (1) remain in possession and control of the Property; (2) use, operate or manage the Property; and (3) collect the Rents from the Property.

Duty to Maintain. Grantor shall maintain the Property in good condition and promptly perform all repairs, replacements, and maintenance necessary to preserve its value.

Compliance With Environmental Laws. Grantor represents and warrants to Lender that: (1) During the period of Grantor's ownership of the Property, there has been no use, generation, manufacture, storage, treatment, disposal, release or threatened release of any Hazardous Substance by any person on, under, about or from the Property; (2) Grantor has no knowledge of, or reason to believe that there has been, except as previously disclosed to and acknowledged by Lender in writing, (a) any breach or violation of any Environmental Laws, (b) any use, generation, manufacture, storage, treatment, disposal, release or threatened release of any

Book 01056:1219 Augusta - Richmond County
2006026378 05/23/2006 12:42:26.00
$16.00 AFFIDAVIT
2006026378 Augusta - Richmond County

AFTER RECORDING RETURN TO:

Carol R. Geiger
McKenna Long & Aldridge LLP
303 Peachtree Street, Suite 5300
Atlanta, Georgia 30308

CROSS REFERENCE:

Book 01050:2577

CORRECTIVE AFFIDAVIT

THIS AFFIDAVIT is made this 18th day of May, 2006, by **ATLANTA GAS LIGHT COMPANY** a Georgia corporation (hereinafter referred to as "Declarant").

WITNESSETH:

WHEREAS, Declarant owns the property more particularly described as Parcel 047-3-225-00-0 as recorded in the Augusta - Richmond County Deed Book 731, Page 1407(the "Property"); and

WHEREAS, the Property has been remediated pursuant to the Georgia Hazardous Site Inventory and pursuant to the Georgia Hazardous Site Response Act ("HSRA") (O.C.G.A. § 12-8-96 et seq.); and

WHEREAS, HSRA requires that this Affidavit be made and recorded as specified in that Act;

WHEREAS, Declarant has previously filed an Affidavit recorded in Book 01050, Page 2577 of the Augusta - Richmond County records;

WHEREAS, the original Affidavit inadvertently described the property's status as to it's listing on the Georgia Hazardous Site Inventory in error;

NOW, THEREFORE, desiring to execute, deliver and record this Corrective Affidavit to supercede in it's entirety, the Original Affidavit, Declarant does hereby state and aver as follows:

This property was listed on the state's hazardous site inventory and was designed as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. However, this Property has since been designated as needing no further action. A copy of that determination is attached hereto. This property is certified as meeting the Type 5 Risk Reduction Standard and will remain on the state's hazardous site inventory. The property owner or the Georgia Environmental Protection Division may be contacted for further information concerning this property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

IN WITNESS WHEREOF, Declarant has signed and sealed this Affidavit which supersedes, on the day, month, and year first above written.

Signed, sealed and delivered
in the presence of:

Adrienne L. Scandrett
Notary Public
(Notary Public)
My Commission Expires:
Notary Public, DeKalb County, Georgia
My Commission Expires Nov. 12, 2009

DECLARANT
ATLANTA GAS LIGHT COMPANY
a Georgia Corporation

By: Jeff Brown

Name: Jeffrey P. Brown

Title: Vice President, Legal

Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, S.E., Suite 1154, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
404/656-7802

COPY

February 24, 2006

VIA CERTIFIED MAIL
Return Receipt Requested

Mr. Ira Pearl
Vice President
AGL Resources
P.O. Box 4569
Atlanta, Georgia 30302-4569

Book 01056:1221 Augusta - Richmond County
2006026378 05/23/2006 12:42:26.00

Re: On-Site Type 5 Property Certification
Atlanta Gas Light Co - Augusta MGP
Tax ID No. PIN 047-3-225-00-0
HSI #10132

Dear Mr. Pearl:

The Georgia Environmental Protection Division (EPD) has completed its review of Atlanta Gas Light Company's (AGLC) Corrective Action Closure Report and Compliance Status Report Northern Parcel Operable Units 1 and 2 (Closure Report) received October 24, 2005 and Compliance Status Certification submitted on February 9, 2006. AGLC has certified the Northern Parcel is in compliance with the Type 5 Risk Reduction Standards (RRS) of the Rules for Hazardous Site Response (Rules). EPD approves the Closure Report and concurs with your certification. According to AGLC, the Tax I.D. Number for the Type 5 parcel is 047-3-225-00-0. The following items remain to be addressed by AGLC within 60 days of the date of this letter:

1. If applicable, existing property notices identified in Section 391-3-19-.08 of the Rules (i.e. restrictive covenant and affidavit) must be replaced with revised notices. Copies of the replacement documents must be submitted to EPD.
2. Place the permanent markers called for in 391-3-19-.08(7)(d).
3. A Continuing Action Monitoring Plan for all parcels meeting non-residential risk reduction standards (i.e. Types 3-5) must be submitted to EPD, and should include all specific continuing monitoring activities that will be performed for the entire site.

Enclosed is a copy of the public notice that EPD intends to publish as soon as practicable in the Augusta Chronicle. If you have any questions, please contact John Fonk at (404) 657-8671.

Sincerely,

Mark Smith
Chief
Hazardous Waste Management Branch

Enclosure

Exhibit "A"

Book 01056:1222 Augusta - Richmond County
2006026378 05/23/2006 12:42:26.00

PUBLIC NOTICE OF EPD'S CONCURRENCE WITH CERTIFICATE OF COMPLIANCE SUBMITTED FOR SITE ON THE HAZARDOUS SITE INVENTORY

This public notice is to inform all interested parties that the Georgia Environmental Protection Division (EPD) has completed its review of the Closure Report/Compliance Status Report received on October 24, 2005 and Certification of Compliance received on February 9, 2006 for the Northern Parcel of the Atlanta Gas Light (AGLC) – Augusta Manufactured Gas Plant (MGP) Site. The Northern Parcel is located adjacent to the intersection of Eighth Street and Walton Way in Augusta, Richmond County, Georgia. The site is listed on the Hazardous Site Inventory (HSI) as No. 10132. EPD concurs with AGLC's determination that parcel ID No. 047-3-225-00-0 is in compliance with the Type 5 Risk Reduction Standards of Rule 391-3-19-.07 of the Rules for Hazardous Site Response. This certification does not include adjacent parcels or the Third Level Canal, which will be addressed separately.

Additional information about this site may be obtained by calling John Fonk of EPD at (404) 656-7802.

Filed in this office:
Augusta - Richmond County
05/23/2006 12:42:26.00
Elaine C. Johnson
Clerk of Superior Court

Book 01056:1223 Augusta - Richmond County
2006026379 05/23/2006 12:43:42.00
$5.00 ASSIGNMENT
2006026379 Augusta - Richmond County

PREPARED BY AND
RETURN TO:
Attn: Ashley Pengelly
SHAPIRO & SWERTFEGER
2872 Woodcock Boulevard
Duke Building, Ste. 100
Atlanta, Georgia 30341
(770) 220-2535

STATE OF MN
COUNTY OF Dakota

03-4819/Harris, Aaron V. and Odom, Rebecca
Loan # 8480913089

CORPORATE ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby transfers, assigns, sells, conveys and delivers to **Washington Mutual Bank**, whose address is **c/o 1270 Northland Drive Mendota Heights, 55120** (hereinafter referred to as Assignee), a certain Deed to Secure Debt (hereinafter called Deed) dated **July 26, 2000**, between **Aaron V. Harris and Rebecca Odom** (grantor) and **North American Mortgage Company** (grantee), said Deed being recorded in Deed Book **Realty Reel 694**, page **2172, RICHMOND** County Records; together with the Note and the debt evidenced thereby which said Deed was given to secure; and does hereby deed, grant, bargain, sell and convey to the said Assignee all of the property in the said Deed, together with all the rights, powers and privileges therein contained in as full, ample and complete manner as the undersigned is authorized to exercise the same.

IN WITNESS WHEREOF, the undersigned has caused this instrument to be executed by its duly authorized corporate officers and its corporate seal affixed as of **March 6, 2006.**

Mortgage Electronic Registration Systems, Inc.

Signed and delivered
in the presence of:

By: _____
Vice President Rick Wilken

(1) _____
(Unofficial Witness)

Attest: _____
Asst. Secretary
Liquenda Allotey

(2) _____
Notary Public

CORPORATE SEAL

My Commission Expires:

CARMELA D. LAGARILE
NOTARY PUBLIC - MINNESOTA
MY COMMISSION
EXPIRES JAN. 31, 2008

NOTARY SEAL

Filed in this office:
Augusta - Richmond County
05/23/2006 12:43:42.00
Elaine C. Johnson
Clerk of Superior Court

CRD

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

98 APR 22 PM 12:59

807 Dantignac Street, Augusta, Georgia

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 40.00
Date 4-22-98
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 593 PAGE 799
MIP ID 354774

THIS INDENTURE, made this 20th day of April, 1998 between **JERRY THOMAS**, as party of the first part, and **ATLANTA GAS LIGHT COMPANY**, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the north side of D'Antignac Street, between 8th and 9th Streets, said lot having a frontage of 72 feet on the north side of D'Antignac Street and extending back in a northerly direction between approximately parallel lines to the banks of the Augusta Canal, the western boundary line extending a distance of 101.3 feet and the eastern boundary line extending a distance of 39.5 feet, with its rear or northern boundary line extending along said Canal back a distance of 94.5 feet. Said property is more particularly shown and described as Lot "A" on a plat of survey dated May 1, 1959, prepared by Edwin S. Epstein, Jr., Registered Land Surveyor, which is recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Book 26B, page 75. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

SAID property is known and designated as 807 Dantignac Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

4/20/98

IN WITNESS WHEREOF, the party of the first part has set his hand and seal the day and year first above written.

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Witness

Jerry Thomas (L.S.)
Jerry Thomas

Notary Public, Richmond County, Georgia
My commission expires: 8/25/2001
(NOTARY SEAL)

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 22 APR 1998 AT 12 59PM
RECORDED 22 APR 1998

REEL 593 PAGE 711

Recording Requested By / Return To:
Peelle Management Corporation
P.O. Box 1710, Campbell, CA 95009-1710

98 APR 22 PM 12:37

Prepared by: R. S. Stone

INSTRUMENT REEL RECORDED
REEL 593 PAGE 711
WIP ID: 354375

Assignment of Security Deed

For Good and Valuable Consideration, the sufficiency of which is hereby acknowledged, the undersigned,
FLEET NATIONAL BANK,
FKA Industrial National Bank of Rhode Island
a national banking association organized under the laws of the United States of America
whose address is 111 Westminster St., Providence, RI 02903 (Assignor)
by these presents does convey, grant, bargain, sell, assign, transfer and set over the described security deed, together with the certain note(s) described therein with all interest, all liens, and any rights due or to become due thereon to:

FLEET MORTGAGE CORP., a South Carolina corporation
1945 W. Palmetto St., Florence, SC 29501 (Assignee)
Said security deed is recorded in the State of GA, County of Richmond
on 08/03/92 as Book/Vol/Liber 393 on page 1714
Original Mortgagor--: WAYNE E. FIELDS, ELAINE F. FIELDS
Original Mortgagee--: MORTGAGE TRUST CORPORATION

Date of security deed: 07/27/92
Re-recorded Date: 08/25/92 Book: 395 Page: 1899

IN WITNESS WHEREOF, the undersigned corporation has caused this instrument to be executed as a sealed instrument by its proper officer who was duly authorized by a resolution of its board of directors.

Dated: January 1, 1997
FLEET NATIONAL BANK

By: Debbie Golisano
Debbie Golisano
Vice President

FLEET NATIONAL BANK OFFICIAL SEAL

State of California
County of Santa Clara

SIGNED, SEALED AND DELIVERED
in the presence of:

Ruth Rubio
Witness: Ruth Rubio
Date Notarized: 03/30/98

Diane Dorcey
Notary: Diane Dorcey
My Commission Expires December 1, 2000

DIANE DORCEY
COMM.1118838
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My Comm. Expires DEC. 1, 2000

Peelle Management Corp., P.O. Box 1710, Campbell, CA
Pool: 0000328404 1st LN#: 0051872007
FINAL A.O fleet597 90597 1 033098 GNM 635 10-245 GA Richmond

4528

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 22 APR 1998 AT 12 [illegible]
RECORDED 22 APR 1998

REEL 593 PAGE 712

Recording Requested By / Return To:
Peelle Management Corporation
P.O. Box 1710, Campbell, CA 95009-1710

Prepared by: R. S. Stone

98 APR 22 PM 12:37

INSTRUMENT RECEIVED
REEL 593 PAGE 712
WIP ID 354378

Assignment of Security Deed

For Good and Valuable Consideration, the sufficiency of which is hereby acknowledged, the undersigned,
FLEET NATIONAL BANK,
FKA Industrial National Bank of Rhode Island
a national banking association organized under the laws of the United States of America
whose address is 111 Westminster St., Providence, RI 02903 (Assignor)
by these presents does convey, grant, bargain, sell, assign, transfer and set over the described security deed, together with the certain note(s) described therein with all interest, all liens, and any rights due or to become due thereon to:

FLEET MORTGAGE CORP., a South Carolina corporation
1945 W. Palmetto St., Florence, SC 29501 (Assignee)
Said security deed is recorded in the State of GA, County of Richmond
on 08/11/92 as Book/Vol/Liber 394 on page 1455
Original Mortgagor---: MELVIN SCOTT
Original Mortgagee---: PALMETTO FEDERAL SAVINGS BANK OF SOUTH CAROLINA

Date of security deed: 08/07/92

IN WITNESS WHEREOF, the undersigned corporation has caused this instrument to be executed as a sealed instrument by its proper officer who was duly authorized by a resolution of its board of directors.

Dated: January 1, 1997
FLEET NATIONAL BANK

By: Debbie Golisano
Debbie Golisano
Vice President

FLEET NATIONAL BANK OFFICIAL SEAL

State of California
County of Santa Clara

SIGNED, SEALED AND DELIVERED
in the presence of:

Ruth Rubio
Witness: Ruth Rubio
Date Notarized: 03/30/98

Diane Dorcey
Notary: Diane Dorcey
My Commission Expires December 1, 2000

DIANE DORCEY
COMM. 1118838
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My Comm. Expires DEC. 1, 2000

Peelle Management Corp., P.O. Box 1710, Campbell, CA
Pool: 0000328407 1st LN#: 0051230843
FINAL A.0 fleet597 90597 1 033098 GNM 636 10-245 GA Richmond

4651

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 22 APR 1998 AT 12 [illegible]
RECORDED 22 APR 1998

REEL 593 PAGE 712

Recording Requested By / Return To:
Peelle Management Corporation
P.O. Box 1710, Campbell, CA 95009-1710

Prepared by: R. S. Stone

Assignment of Security Deed

For Good and Valuable Consideration, the sufficiency of which is hereby acknowledged, the undersigned,
FLEET NATIONAL BANK,
FKA Industrial National Bank of Rhode Island
a national banking association organized under the laws of the United States of America
whose address is 111 Westminster St., Providence, RI 02903 (Assignor)
by these presents does convey, grant, bargain, sell, assign, transfer and set over the described security deed, together with the certain note(s) described therein with all interest, all liens, and any rights due or to become due thereon to:

FLEET MORTGAGE CORP., a South Carolina corporation
1945 W. Palmetto St., Florence, SC 29501 (Assignee)
Said security deed is recorded in the State of GA, County of Richmond
Book/Vol/Liber 395 on page 246
Original Mortgagor--: JOHN HARRISON DAVIS, KATHERINE LEE DAVIS
Original Mortgagee--: MORTGAGE TRUST CORPORATION

Date of security deed: 08/05/92

INSTRUMENT REEL RECORDED
REEL 593 PAGE 712
WIP ID: 354377

IN WITNESS WHEREOF, the undersigned corporation has caused this instrument to be executed as a sealed instrument by its proper officer who was duly authorized by a resolution of its board of directors.

Dated: January 1, 1997
FLEET NATIONAL BANK

By: Debbie Golisano
Debbie Golisano
Vice President

FLEET NATIONAL BANK OFFICIAL SEAL

State of California
County of Santa Clara

SIGNED, SEALED AND DELIVERED
in the presence of:

Ruth Rubio
Witness: Ruth Rubio
Date Notarized: 03/30/98

Diane Dorcey
Notary: Diane Dorcey
My Commission Expires December 1, 2000

DIANE DORCEY
COMM.1118838
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My Comm. Expires DEC. 1, 2000

Peelle Management Corp., P.O. Box 1710, Campbell, CA
Pool: 0000328407 1st LN#: 0051872612
FINAL A.0 fleet597 90597 1 033098 GNM 637 V 10-245 GA Richmond

4739

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 22 APR 1998 AT [illegible]
RECORDED 22 APR 1998

Book 00825:1030 Augusta - Richmond County
2002051169 12/04/2002 15:33:02.02
$38.60 QUITCLAIM DEED
2002051169 Augusta - Richmond County
Transfer Tax: $26.60

3)

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

STATE OF GEORGIA

COUNTY OF RICHMOND

QUIT-CLAIM DEED

THIS INDENTURE, made this 3rd day of ~~November~~ December, 2002 between **FRANCES LEVERETT MILTON**, as party of the first part, and **ATLANTA GAS LIGHT COMPANY,** as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of FIVE AND NO/100 DOLLARS ($5.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the real property described on Exhibit "A" attached hereto and by reference made a part hereof.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under her shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set her hand and seal hereto as of the day and year first above written.

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Witness

Frances L. Milton (L.S.)
FRANCES LEVERETT MILTON

Notary Public, Richmond County, Georgia
My commission expires: 8-24-2004
(SEAL)

J. NOEL SCHWEERS III
NOTARY PUBLIC
Exp. Aug. 24, 2004
RICHMOND COUNTY, GA

EXHIBIT "A"

ALL that lot or parcel of land, with improvements thereon, situated, lying and being in the City of Augusta, County of Richmond, State of Georgia, located on the Eastern side of Jackson (8th) Street between Calhoun and Taylor Streets, fronting 45 feet on the East side of Jackson (8th) Street, and extending back in an Easterly direction, between parallel lines, a distance of 143 feet 10 inches, more or less, to the property now or formerly of W. J. Bollinger, said lot being bounded, now or formerly, North by property of Eleanor A. Bennett, et al, and Regina Ward; East by property of W. J. Bollinger; South by property of Alex and Carrie Davis; and West by Jackson (8th) Street, and being the same property conveyed to Johnny Lee Milton and Frances Leaverett Milton by deed recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia on Realty Reel 70, Page 1297.

Said property is known as 808 Eighth Street according to the system of street numbering currently used in Augusta.

(4)

PLEASE RETURN TO: J. Noel Schweers III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

Book 00825:1032 Augusta - Richmond County
2002051170 12/04/2002 15:33:02.03
$161.00 QUITCLAIM DEED
2002051170 Augusta - Richmond County
Transfer Tax: $147.00

RECORDING COVER SHEET

This cover sheet is being provided because the attached document does not comply with the margin requirements for recording.

Please index the enclosed as follows:

Grantor: Atlanta Gas Light Company
Grantee: Frances Leverett Milton

Book 00825:1033 Augusta - Richmond County
2002051170 12/04/2002 15:33:02.03

PLEASE RETURN TO: J. Noel Schweers, III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

STATE OF GEORGIA

COUNTY OF RICHMOND

QUIT-CLAIM DEED

THIS INDENTURE, made this 3rd day of December, 2002 between **ATLANTA GAS LIGHT COMPANY**, as party of the first part, and **FRANCES LEVERETT MILTON,** as party of the second part.

WITNESSETH :

That the said party of the first part, for and in consideration of the sum of FIVE AND NO/100 DOLLARS ($5.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, their heirs and assigns, the real property described on Exhibit "A" attached hereto and by reference made a part hereof.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under it shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has caused this instrument to be executed by its duly authorized officers who affixed the corporate seal as of the day and year first above written.

Signed, sealed and delivered in our presence
in Fulton County, Georgia

Renee H. McCrary
Witness

Elayne S. Batt
Notary Public, Fulton County, Georgia
My commission expires: June 20, 2005

(SEAL)

Notary Public DeKalb County, Georgia
My Commission Expires June 20, 2005

ATLANTA GAS LIGHT COMPANY

By: Paul R. Shlanta
Paul R. Shlanta
As its: Senior Vice President

Attest: Joan A. Martin
Joan A. Martin
As its: Asst. Secretary

(CORPORATE SEAL)

ATLANTA GAS LIGHT CO. INCORPORATED FEBRUARY 16 1856 GEORGIA

EXHIBIT "A"

ALL THAT TRACT OR PARCEL of land, situate, lying and being on the South side of Camelot Drive in a certain subdivision known as Windsor Forest, in the 1269th District, G.M. of Richmond County, Georgia, and being more particularly shown and designated as Lot No. 1, Block C, Section I of said subdivision upon a certain plat made for C-W-B Investment Company, Inc. by Charles T. Alexander, C.E., dated September 29, 1961, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Book 27-X, Page 388, specific reference being made to said plat for a more complete and accurate description of said lot of land, its exact location, dimensions, metes and bounds. Said lot of land is bounded as follows: North by Camelot Drive; East by Lot No. 2 of said block, section and plat; South by property of James G. Bailie; and West by Wilkshire Drive.

Filed in this office:
Augusta - Richmond County
12/04/2002 15:33:02.03
Elaine C. Johnson

REEL 595 PAGE 220

PLEASE RETURN TO: J. Noel Schweers III
Hull, Towill, Norman & Barrett, P.C.
P.O. Box 1564
Augusta, GA 30903

809 D'Antignac Street

98 MAY -6 AM 10:08

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax

Paid $ 50.30

Date 5-6-98

Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 595 PAGE 220
HIP ID: 356115

THIS INDENTURE, made this 4th day of May, 1998 between ALICE WILLIAMS EDWARDS, as party of the first part, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot, tract or parcel of land, with any improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the north side of D'Antignac Street, and having a frontage of 38.15 feet on the north side of D'Antignac Street and extending back between parallel lines for a distance of 132.7 feet on its western boundary line, and for a distance of 101.3 feet on its eastern boundary line to a rear width of 48 feet. Said property is more particularly described as Lot "B" on that certain plat dated May 1, 1959, prepared by Edwin S. Epstein, Jr., Registered Land Surveyor, and recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Book 25Z, page 370. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

BEING the same property conveyed to Alice Edwards and Julius Edwards by deed of Charles Ruben dated May 21, 1959, and recorded in Realty Book 25Z, page 369, in said Clerk's Office. Alice Williams Edwards subsequently acquired all right, title and interest in and to said property by Year's Support which is recorded in Realty Reel 491, pages 806-808, in said Clerk's Office.

SAID property is known and designated as 809 D'Antignac Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part

shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set her hand and seal the day and year first above written.

Signed, sealed and delivered in our presence in
Richmond County, Georgia

Witness

Alice Williams Edwards (LS)
Alice Williams Edwards

Notary Public, Richmond County, Georgia

My commission expires: Notary Public, Clayton County, Georgia
My Commission Expires Sept. 27, 1999

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 06 MAY 1998 AT 10:48AM
RECORDED 06 MAY 1998

REEL 595 PAGE 222

FFC #: 223100
NAME: FOLGER, CAROLYN A
P/O DATE: 03/19/98

2001 MAY -5 AM 11:03

PREPARED BY: Megan Beck
FLEET MORTGAGE GROUP
4201 Lake Cook Road
Northbrook, IL 60062

INSTRUMENT REEL RECORDED
REEL 595 PAGE 222
MIP ID 356116

AFTER RECORDING, FORWARD TO:

CAROLYN A FOLGER
3427 KENSINGTON DRIVE
AUGUSTA, GA 30906
File/Escrow #: N/A

CANCELLATION OF A SECURITY DEED

The indebtedness referred to in that certain deed to secure debt from BOBBY G. FOLGER AND CAROLYN A. FOLGER to CAMERON-BROWN COMPANY dated 01/12/72, and of record on 01/18/72 in Deed Book 39-Z, Page 856 as Document No. N/A, in the Office of the Superior Court of RICHMOND County, Georgia, having been paid in full and the undersigned being the present record holder and owner of such deed, the clerk of such Superior Court is authorized and directed to cancel that deed of record.

CAMERON-BROWN COMPANY TO FEDERAL NATIONAL MORTGAGE ASSOCIATION DATED 1/21/72 RECORDED 2/16/72 BK. 1 PG. 2075 INST. # N/A

Legal Description: SEE ATTACHED ADDENDUM

In witness whereof, the undersigned has set his/her hand and seal on this day: 04/13/98

FEDERAL HOME LOAN MORTGAGE CORPORATION BY FLEET MORTGAGE CORP. F/K/A FLEET REAL ESTATE FUNDING CORP. AS ATTORNEY IN FACT

FLEET MORTGAGE CORP 1972 CORPORATE SEAL SOUTH CAROLINA

By: _____
Lawrence A. Hill, Vice President

By: _____
Bridget Schuler, Mortgage Officer

Signed, sealed, and delivered on the date above shown

WITNESS: MEGAN BECK

_____
Mireya Duran, NOTARY PUBLIC

My Commission Expires: September 12, 2001

OFFICIAL SEAL
MIREYA DURAN
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 9-12-2001

GAFFC.MTG (91)
QA 10/94
Batch: 04/02/98

Loan 503100 County Duplicate State GA

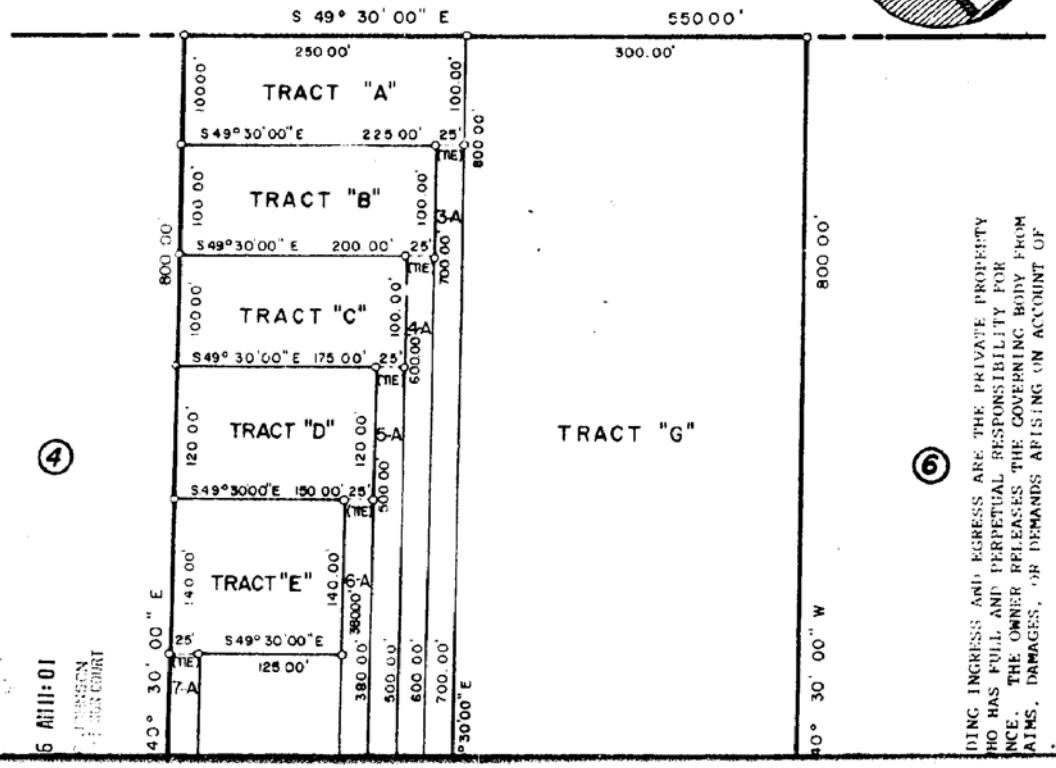
ADDENDUM

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as Lot 18 of Kimberly Park Subdivision, as shown on a plat of said subdivision recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia in Realty Book 31-E, Page 244; reference hereby being made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

GA RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 06 MAY 1998 AT 11:03AM
RECORDED 06 MAY 1998

FILED IN PLAT CABINET B
SLIDE 45 PLAT H

% N/F RANCH ESTATES, INC. %



DING INGRESS AND EGRESS ARE THE PRIVATE PROPERTY
HO HAS FULL AND PERPETUAL RESPONSIBILITY FOR
NCE. THE OWNER RELEASES THE GOVERNING BODY FROM
AIMS, DAMAGES, OR DEMANDS ARISING ON ACCOUNT OF

REEL 595 PAGE 224

6 AM 11:01
JEFFERSON
CLERK COURT

PLEASE RETURN TO: J. Noel Schwerzx, III
Hull, Towill, Norman & Barrett, P.C.
P. O. Box 1564
Augusta, GA 30903

811 Dantignac Street, Augusta, Georgia

STATE OF GEORGIA

COUNTY OF RICHMOND

THIS INDENTURE, made this 8th day of June, 1998 between **BARBARA WILEY**, as party of the first part, and **ATLANTA GAS LIGHT COMPANY**, a Georgia corporation, as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has bargained, sold, and by these presents does remise, convey and forever QUIT-CLAIM to the said party of the second part, its successors and assigns, the following described real property:

ALL that lot or parcel of land, with improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, on the north side of D'Antignac Street, between Eighth and Ninth Streets, said lot having a frontage of 43.85 feet on the north side of D'Antignac Street and extending back in a northerly direction between approximately parallel lines to the banks of the Augusta Canal, the western boundary line extending a distance of 171 feet and the eastern boundary line extending a distance of 132.7 feet, with its rear or northern boundary line extending along said canal back a distance of 58.7 feet. Said property is known and described as Lot "C" on a plat of survey dated May 1, 1959, prepared by Edwin S. Epstein, Jr., Registered Land Surveyor, which is recorded in Realty Book 26B, page 75. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property.

SAID property is known and designated as 811 Dantignac Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

TO HAVE AND TO HOLD the said described premises to the said party of the second part, so that neither the said party of the first part nor any other person or persons claiming under the party of the first part shall at any time, by any means or ways, have, claim or demand any right or title to the aforesaid described premises or appurtenances, or any rights thereof.

IN WITNESS WHEREOF, the party of the first part has set his hand and seal the day and year first above written.

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax

Paid $ 138.00

Date 6-8-98

Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

A:\si-gas\WILEY\QCD.WIL
June 3, 1998 (8:14AM)

ORIGINAL REEL RECORDED
REEL 598 PAGE 2151
WIP ID 759899

Signed, sealed and delivered in our presence in Richmond County, Georgia

Witness

Barbara Wiley (L.S.)
Barbara Wiley

Notary Public, Richmond County, Georgia

My commission expires:

(NOTARY SEAL)

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 08 JUN 1998 AT 01:47PM
RECORDED 08 JUN 1998

REEL 598 PAGE 2153

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 110.00
Date 6-8-98
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

RETURN TO: ROY D. TRITT
WARLICK, TRITT & STEBBINS
POST OFFICE BOX 204430
AUGUSTA, GEORGIA 30917-4450

ORIGINAL REEL RECORDED
REEL 598 PAGE 2153
MIP ID: 359894

WARRANTY DEED

THIS INDENTURE made and entered into the 8th day of June, 1998 between **Bowles Construction, Inc.**, hereinafter referred to as the Grantor, and **Barbara Wiley and Michael Wiley**, hereinafter referred to as the Grantees,

WITNESSETH, that said Grantor for and in consideration of the sum of **One Hundred Ten Thousand Dollars and 00/100** to it in hand well and truly paid by Grantee, at and before the sealing and delivery of these presents, the receipt where of is hereby acknowledged, has granted, bargained, sold, released, conveyed and confirmed, and by these presents does grant, bargain, sell release, convey and confirm, unto said Grantee, his heirs and assigns, the following described property to-wit:

> All that lot or parcel of land with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as Lot 5, Block B in Unit One of Kingston Subdivision, as shown on a plat of the subdivision of record in the Office of the Clerk of Superior Court in Realty Book 29-T, pages 925-926. Reference is hereby made to said plat for a more complete and accurate description of said property hereby conveyed.
>
> Said property is conveyed subject to Protective Covenants recorded in said Clerk's Office in Realty Book 3-C page 247.

TOGETHER WITH ALL AND SINGULAR the rights, easements, ways, members and appurtenances to said land, being, belonging or any wise appertaining and the remainders,

reversions, rents, issues and profits thereof, and every part thereof.

TO HAVE AND TO HOLD, said land and all and singular the members and appurtenances thereto belonging as aforesaid, and every part thereof, unto Grantee, his heirs and assigns, forever, in fee simple.

And the Grantor, his heirs and legal representatives shall and will WARRANT and forever defend by these presents the title to said land unto the Grantee, his heirs, legal representatives and assigns, against Grantor, his heirs and legal representatives, and against lawful claim or claims of any person or persons whomsoever, but not as against any exception hereinabove set forth.

The phrases "Grantor" and "Grantee" as used in the singular herein, shall when appropriate, be construed to read as is written in the plural, and the pronouns and relative words used herein shall, when appropriate, be construed to read as if written in the feminine or neuter, respectively, and the word "successors" shall be substituted for the word "heirs" when appropriate.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed by its duly authorized corporate officers and its corporate seal affixed hereto the day and year first above written as the date of these presents.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF

Notary Public, _____ County
GEORGIA
My Commission Expires: _____

Notary Public, Richmond County, Georgia
My Commission Expires July 23, 2000

Bowles Construction, Inc.

BY _____ (L.S.)
As its V.P.

[CORPORATE SEAL]

GA, RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 08 JUN 1998 AT 02:15PM
RECORDED 08 JUN 1998

00598
02155

RICHMOND COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ [illegible]
Date [illegible]
Elaine C. Johnson
Elaine C. Johnson
Clerk of Superior Court

REEL 598 PAGE 2155

JAMES F. FINDLAY, ATTORNEY AT LAW (56-215)
1557 GORDON HWY., SUITE D
AUGUSTA, GEORGIA 30906

WARRANTY DEED

STATE OF GEORGIA

COUNTY OF RICHMOND

ORIGINAL REEL RECORDED
REEL 598 PAGE 2155
WIP ID: 359895

This Indenture made this **29th** day of **May**, in the year **One Thousand Nine Hundred Ninety-Eight**, between **WILLIE JAMES BOLWARE, JR.*** of the County of Richmond, State of Georgia, as party or parties of the first part, hereinunder called Grantor, and **JOHNNIE W. DAVIS**, as party or parties of the second part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits).

*Individually and as Guardian of Antonio Bertron Burton

W I T N E S S E T H that: Grantor, for and in consideration of the sum of **TEN AND 00/100'S ($10.00) Dollars** and other good and valuable considerations in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the said Grantee,

ALL THAT LOT OR PARCEL OF LAND, with improvements thereon, situate, lying and being in the State of Georgia, County of Richmond, being known and designated as LOT 4, BLOCK "G", OF WILKINSON GARDENS SUBDIVISION and a portion of property formerly of Ellen W. Burch, as shown on a plat thereof recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Reel 142, Page 749, to which plat reference is hereby made for the purpose of providing a more complete and accurate description as to the metes, bounds and location of said property.

This conveyance is made subject to any and all restrictions and/or easements of record in the aforesaid Clerk's office which might be applicable to said property.

This Deed is executed by grantor herein under the authority vested in him by the Probate Court of Dekalb County Georgia as Guardian of the perosn and property of Antonio Bertron Burton, a minor child and pursuant to an Order granting leave to sell filed in the records of said Court.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Grantee forever in **FEE SIMPLE.**

AND THE SAID Grantor will warrant and forever defend the right and title to the above described property unto the said Grantee against the claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantor has hereunto set grantor's hand and seal this day and year first above written.

Signed, sealed and delivered in the presence of:

Witness

Notary Public, COLUMBIA COUNTY, GA
My Commission Exp. 09/06/01

NOTARY PUBLIC, HENRY COUNTY, GEORGIA
MY COMMISSION EXPIRES AUG. 29, 1999

WILLIE JAMES BOLWARE, JR.A/K/A WILLIE J. BOLWARE, JR. (Seal)
Individually and as Guardian of
Antonio Bertron Burton

(Seal)

(Seal)

GA. RICHMOND COUNTY CLERK SUPERIOR COURT
FILED FOR RECORD 08 JUN 1998 AT 02:18PM
RECORDED 08 JUN 1998

Book 01229:0030 Augusta - Richmond County
2009035411 08/24/2009 16:08:39.00
$19.00 WARRANTY DEED
2009035411 Augusta - Richmond County
Transfer Tax: $3.00

Return Recorded Document To:
J. Noel Schweers III, P.C.
Post Office Box 31390
Augusta, Georgia 30903

STATE OF GEORGIA

COUNTY OF RICHMOND

DEED

THIS INDENTURE, made the 17th day of August, 2009, between **MIRACLE MAKING MINISTRIES, INC.**, a Georgia non-profit corporation (hereinafter referred to as "Grantor"), and **ATLANTA GAS LIGHT COMPANY**, a Georgia corporation (hereinafter collectively referred to as "Grantee").

WITNESSETH:

For and in consideration of the simultaneous exchange of property delivered to Grantor by Grantee at and before the execution, sealing and delivery hereof, the receipt and sufficiency of which are hereby acknowledged, Grantor has and hereby does grant, bargain, sell, alien, convey and confirm unto Grantee, and the legal representatives, successors, successors-in-title and assigns of Grantee, all that tract or parcel of land lying and being located in the City of Augusta, Richmond County, Georgia, as more particularly described on Exhibit A attached hereto and hereby made a part hereof.

This conveyance is made subject to the Permitted Title Exceptions shown on Exhibit B attached hereto and incorporated herein by this reference (the "Permitted Title Exceptions").

To have and to hold said tract or parcel of land, together with any and all improvements located thereon, and any and all of the rights, members and appurtenances thereof to the same being, belonging or in anywise appertaining to the only proper use, benefit and behoof of Grantee and the legal representatives, successors, successors-in-title and assigns of Grantee, forever, in fee simple.

property. This notice is provided in compliance with the Georgia Hazardous Site Response Act."

To have and to hold said tract or parcel of land, together with any and all improvements located thereon, and any and all of the rights, members and appurtenances thereof to the same being, belonging or in anywise appertaining to the only proper use, benefit and behoof of Grantee and the legal representatives, successors, successors-in-title and assigns of Grantee, forever, in fee simple.

Grantor shall warrant and forever defend the right and title to said tract or parcel of land unto Grantee and the legal representatives, successors-in-title and assigns of Grantee, against the claims of all persons whomsoever claiming by, through or under Grantor, but not otherwise, subject to the Permitted Title Exceptions.

IN WITNESS WHEREOF, Grantor has signed, sealed and delivered this deed the day and year first above written.

GRANTOR:

MIRACLE MAKING MINISTRIES, INC., a Georgia non-profit corporation

By: _____
Name: Robert L. Williams
Title: CEO

Signed, sealed, and delivered in the presence of:

_____
Unofficial Witness

_____
Notary Public

My Commission Expires: Aug. 7, 2012

[NOTARIAL SEAL]

J. NOEL SCHWEERS, III
NOTARY
PUBLIC
Exp. Aug. 07, 2012
RICHMOND COUNTY, GA

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

812 Eighth Street

All that lot or parcel of land, with the improvements thereon, situate, lying and being in the City of Augusta, Richmond County, Georgia, fronting a distance of 38 feet 6 inches, more or less, on the east side of Jackson Street, extending back of equal width a distance of 140 feet 10½ inches, being known and designated as the westernmost half of Lot 44 on a certain plat which is recorded in the Office of the Clerk of Superior Court of Richmond County, Georgia, in Realty Book 2H, pages 425-426. Reference is hereby made to said plat for a more complete and accurate description as to the metes, bounds and location of said property. Said property is bounded, now or formerly, as follows: On the North, by property now or formerly of Maggie Goodwin; on the East, by property now or formerly of Edward O'Donell and Catherine A. O'Donell; on the South, by property now or formerly of Mrs. L. C. Maxwell; and on the West, by Eighth Street.

SAID property is known and designated as 812 Eighth Street according to the system of street numbering currently in use by the City of Augusta, Richmond County, Georgia.

Tax Parcel Number: 047-3-228-00-0

EXHIBIT B

PERMITTED TITLE EXCEPTIONS

1. All taxes for the years subsequent to 2009 not yet due and payable.

2. Easements and restrictions of record.

Filed in this office:
Augusta - Richmond County
08/24/2009 16:08:39.00
Elaine C Johnson

Book 01229:0034 Augusta - Richmond County
2009035412 08/24/2009 16:30:09.00
$14.00 FORECLOSURE
2009035412 Augusta - Richmond County

Record and return to:
Bush Law Firm, P.C.
462 Telfair Street
Augusta, Georgia 30901

STATE OF GEORGIA)
) DEED UNDER POWER OF SALE
COUNTY OF RICHMOND)

This instrument made and executed this 6th day of August, 2009.

WITNESSETH:

THAT WHEREAS, on the 4th day of August, 2009, during the legal hours of sale, SECURITY FEDERAL BANK, did expose for sale at public outcry, to the highest bidder for cash, before the Courthouse door in Richmond County, Georgia, the land hereinafter described, at which sale SECURITY FEDERAL BANK was the highest and best bidder at and for $62,000.00 cash; and said property was then and there sold to SECURITY FEDERAL BANK at said sum. The said sale was made by SECURITY FEDERAL BANK under and by virtue of the power and authority granted to SECURITY FEDERAL BANK in a certain Security Deed executed on March 22, 2006, by CHAD M. FEUERHAHN to SECURITY FEDERAL BANK, which deed is recorded on Book 1045, page 1755, in the Richmond County, Georgia, records. Said sale was made after advertising the time, place and terms thereof in the Augusta Chronicle, having general circulation in Richmond County, Georgia, and published in Augusta, Georgia in said County, and being the publication in which Sheriff's advertisements for said County are now published, once a week for four weeks prior to said sale, to-wit: July 9, 16, 23, and 30, 2009, and said advertising in all respects complied with the requirements of the power of sale contained in said Security Deed. Notice pursuant to the provisions of O.C.G.A., Section 44-14-162.2 was provided to said debtor.

Said sale was made for the purpose of paying the indebtedness due to the said SECURITY FEDERAL BANK secured by said Security Deed, and the expenses of the sale; all of which were mature and payable because of default of the said CHAD M. FEUERHAHN in payment of a promissory note secured by said Security Deed, default in payment of said note matured the entire indebtedness.

Plat (3)
Deed (4)

Book 00795:1345 Augusta - Richmond County
2002019644 06/19/2002 09:14:52.02
$382.30 WARRANTY DEED
2002019644 Augusta - Richmond County
Transfer Tax: $368.30

PLEASE RETURN TO: J. Noel Schweers III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

STATE OF GEORGIA

COUNTY OF RICHMOND

WARRANTY DEED

THIS INDENTURE, made and entered into this 18th day of June, 2002, by and between GARY L. RICHARDSON, hereinafter called party of the first part, which expression shall include the plural as well as the singular, and heirs, legal representatives, successors and assigns, where the context so requires or admits, and ATLANTA GAS LIGHT COMPANY, a Georgia corporation, hereinafter called party of the second part, which expression shall include the plural as well as the singular, and heirs, legal representatives, successors and assigns, where the context so requires or admits.

WITNESSETH:

THAT the said party of the first part, for and in consideration of TEN AND NO/100 DOLLARS ($10.00), and other good and valuable consideration by the said party of the second part, the receipt and adequacy of which are hereby acknowledged, has bargained, granted, sold, aliened, conveyed and confirmed, and by these presents does bargain, grant, sell, alien, convey and confirm unto the said party of the second part, the property described on Exhibit "A" attached hereto and by reference made a part hereof.

TOGETHER WITH, all and singular, the rights, ways, easements, members, privileges and appurtenances to the said property, being, belonging, or in any way appertaining, and the rents, reversions, issues and profits thereof, and of every part thereof.

TO HAVE AND TO HOLD said property, and all and singular said rights and privileges, unto the said party of the second part, in fee simple, forever.

AND the said party of the first part shall and will warrant and forever defend by virtue of these presents, the said bargained premises unto the said party of the second part against said party of the first part, and all and every other person or persons.

IN WITNESS WHEREOF, the said party of the first part has hereunto caused this instrument to be executed by its duly authorized officer who has affixed the corporation's seal the day and year first above written.

Signed, sealed and delivered in our presence
in Richmond County, Georgia

Witness

Gary L Richardson (L.S.)

Notary Public, Richmond County, Georgia

My commission expires: 8

(SEAL)

NOTARY PUBLIC
EXP. AUG. 24, 2004
RICHMOND COUNTY, GA

EXHIBIT "A"

All that lot, tract or parcel of land, situate, lying and being in Augusta, Richmond County, Georgia and being shown and designated as "0.87 Ac." on that certain ALTA/ACSM Land Title Survey dated June 11, 2002 prepared by H. Lawson Graham & Associates, Inc. for Atlanta Gas Light Company, a copy of which is recorded simultaneously herewith in Realty Reel 795, pages 1343 - 1344, in the Office of the Clerk of the Superior Court for Richmond County, Georgia. Reference is hereby made to said plat for a more complete description of the Property.

Filed in this office:
Augusta - Richmond County
06/19/2002 09:14:52.02
Elaine C. Johnson

Book 00795:1348 Augusta - Richmond County
2002019645 06/19/2002 09:31:39.00
$10.00 CANCELLATION
2002019645 Augusta - Richmond County

Recording Requested By:
HOMEQ SERVICING CORPORATION

And When Recorded Mail To:
HomEq Servicing Corporation
P O BOX 13309
Mailcode #CA3501
Sacramento, CA 95813-3309

PREPARED BY: HomEq Servicing Corporation
P O BOX 13309
Mailcode #CA3501
Sacramento, CA 95813-3309
866/862-5573, Carol Rodriguez

Space above for Recorder's use

Loan #: 0060670627 Customer #: 740 RLS #: 645653

CANCELLATION OF DEED TO SECURE DEBT

(CANCELLATION OF SECURITY DEED)

State of CALIFORNIA
County of SACRAMENTO

The indebtedness referred to in that certain Deed to Secure Debt from **JASON M PROFFITT AND SKY V PROFFITT EACH AS TO A ONE-HALF (1/2) UNDIVIDED INTEREST** to **TMS MORTGAGE INC., DBA THE MONEY STORE** dated **OCTOBER 09, 1999** and recorded on **NOVEMBER 24, 1999 as Instrument No. 1999035542 in Book No. 00668 at Page No. 0528** in the office of the Clerk of Superior Court of **RICHMOND** County, **GEORGIA**, having been paid in full and the undersigned being the present owner of such secured interest by virtue of being the original grantee or the heir, assign, transferee, or devisee of the original grantee, the clerk of such superior court is authorized and directed to cancel that deed of recorded as provided in Code Section 44-14-4 of the O.C.G.A. for other mortgage cancellations.

Property address: **3614 CONCORD COURT AUGUSTA GA 30906-**

Dated: JUN 1 3 2002

IN WITNESS WHEREOF, the undersigned has set his hand and seal, the day and year above written.

HOMEQ SERVICING CORPORATION (SUCCESSOR BY MERGER TO TMS MORTGAGE INC., DBA THE MONEY STORE)

By: _____
Juanita Jennette, Assistant Vice President

By: _____
Noriko Oshima, Assistant Secretary

UNOFFICIAL WITNESS:

Arleda Polante

Arleda Polante

NOTARY PUBLIC

Jackie Cook

(Notary Name): Jackie Cook
My commission expires:

JACKIE COOK
COMMISSION #1203678
NOTARY PUBLIC – CALIFORNIA
SACRAMENTO COUNTY
MY COMM. EXPIRES DEC 4, 2002

Filed in this office:
Augusta - Richmond County
06/19/2002 09:31:39.00
Elaine C. Johnson

Book 00795:1349 Augusta - Richmond County
2002019646 06/19/2002 09:48:59.00
$22.00 AGREEMENT
2002019646 Augusta - Richmond County

PLEASE RETURN TO: J. Noel Schweers III
Hull, Towill, Norman, Barrett & Salley, P.C.
P. O. Box 1564
Augusta, GA 30903

STATE OF GEORGIA

COUNTY OF RICHMOND

FIRST AMENDMENT TO EASEMENT AND OPERATING AGREEMENT

THIS FIRST AMENDMENT, is made as of the 31st day of August, 2001, by and between The NutraSweet Company, a Delaware Corporation, formerly known as NSC Operating Company ("NutraSweet"), as party of the first part, and G. D. Searle LLC, formerly known as G.D. Searle & Co., a Delaware Corporation ("Searle"), as party of the second part.

WITNESSETH:

WHEREAS, NutraSweet and Searle are parties to that certain Easement and Operating Agreement dated May 19, 2000 and recorded in the Office of the Clerk of the Superior Court of Richmond County, Georgia in Realty Reel 687, pages 2244-2289 (the "Agreement"); and

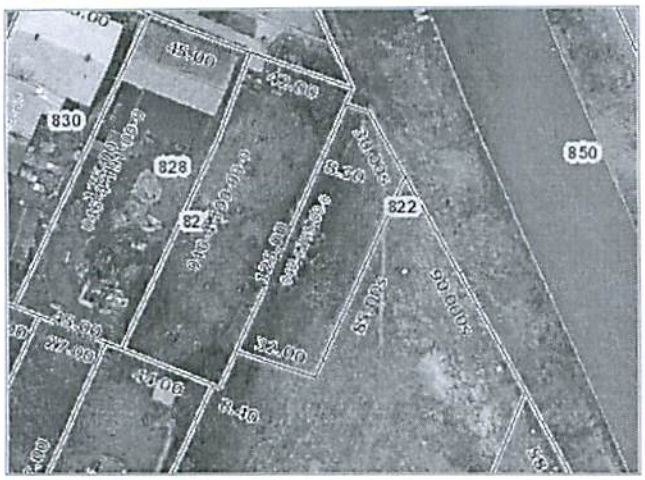
WHEREAS, NutraSweet is the owner of that certain real property located in Augusta, Richmond County, Georgia which is more particularly described on Exhibit "A" attached hereto (the "NutraSweet Property") which is subject to certain easements under the Agreement; and

WHEREAS, Searle owns certain property located to the South and East of the NutraSweet Property and desires to obtain an additional easement for the construction and use of a pipe rack on the NutraSweet Property as contemplated by the Agreement; and

WHEREAS, NutraSweet is willing to grant an easement for such purpose upon the terms and conditions hereinafter set forth.

Augusta, GA - Property Report

Parcel Number	Site Address	City State Zip
046-4-189-00-0	822 BARNES ST	AUGUSTA, GA 30901



Owner Information

Owner Name	ATLANTA GAS LIGHT CO
Mailing Address	817 W PEACHTREE ST NW
City State Zip	ATLANTA, GA 30308-1121

Augusta GEORGIA

Disclaimer: By using this website the User shall constitute an agreement to release Augusta, GA, and all the aforementioned parties in original disclaimer agreed on at entry to the website, of any such liability. For Zoning verification including special exceptions contact the Planning & Development Department at 706-821-1796.

Parcel Information

Tax District	01 Urban	2013 Millage Rate	0.000000
Prop Type Desc	U2-PUBLIC UTILITY	Homestead Exemption	No S0
Tax Neighborhood	24C070 GORDON HWY	Acres	0.06 Vacant Yes
Subdivision Name		Subdivision Block	
Subdivision Phase	Section	Subdivision Lot	
Water	Public	Sewer	Public Sewer
Electric	Electricity	Gas	Tank Gas
Topography	Rolling	Drainage	Good
Road Class	County	Parcel Road Access	Paved

Community Information (Augusta Info & Services Dial 311)

Commission District	1 William Fennoy	Super District	9 Marion Williams
School District	1 Marion E. Barnes	Super School District	9 Venus Cain
Solid Waste Hauler	Advanced	Solid Waste Fee	Contact (706) 592-3200
Solid Waste Service Day	Tues	Street Sweeping Week	N/A
Street Light Fee	Contact: (706) 821-1829	Non-Emergency Police	(706) 821-1080

Multi-Owners

Associated Parcels

2014 Tax Year Value Information

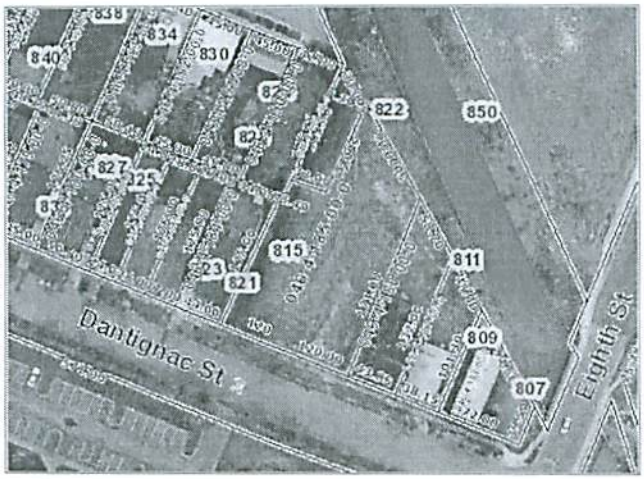
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value
$1	$0	$0	$1	$1

Land Information

Value	Description	Calculation Method	Size
$2,800	C070 -CGB9 -SF	Square Foot	SqFt: 2800 Acres: 0.06

Augusta, GA - Property Report

Parcel Number	Site Address	City State Zip
046-4-185-00-0	815 DANTIGNAC ST	AUGUSTA, GA 30901



Owner Information

Owner Name	ATLANTA GAS LIGHT CO
Mailing Address	817 W PEACHTREE ST NW
City State Zip	ATLANTA, GA 30308-1121

Augusta GEORGIA

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Parcel Information

Tax District	01 Urban	2013 Millage Rate	0.000000
Prop Type Desc	U2-PUBLIC UTILITY	Homestead Exemption	No S0
Tax Neighborhood	24C070 GORDON HWY	Acres	0.44 Vacant Yes
Subdivision Name		Subdivision Block	
Subdivision Phase	Section	Subdivision Lot	
Water	Public	Sewer	Public Sewer
Electric	Electricity	Gas	Tank Gas
Topography	Rolling	Drainage	Good
Road Class	County	Parcel Road Access	Paved

Community Information (Augusta Info & Services Dial 311)

Commission District	1 William Fennoy	Super District	9 Marion Williams
School District	1 Marion E. Barnes	Super School District	9 Venus Cain
Solid Waste Hauler	Advanced	Solid Waste Fee	Contact (706) 592-3200
Solid Waste Service Day	Tues	Street Sweeping Week	N/A
Street Light Fee	Contact: (706) 821-1829	Non-Emergency Police	(706) 821-1080

Multi-Owners

Associated Parcels

2014 Tax Year Value Information

Land Value	Improvement Value	Accessory Value	Total Value	Previous Value
$1	$0	$0	$1	$1

Land Information

Value	Description	Calculation Method	Size
$19,300	C070 -CGB9 -SF	Square Foot	SqFt: 19300 Acres: 0.44

Augusta, GA - Property Report

Parcel Number	Site Address	City State Zip
047-3-327-01-0	902 TAYLOR ST	AUGUSTA, GA 30901

Owner Information

Owner Name	ATLANTA GAS LIGHT CO
Mailing Address	817 W PEACHTREE ST NW
City State Zip	ATLANTA, GA 30308-1121

Augusta GEORGIA

Disclaimer: By using this website the User shall constitute an agreement to release Augusta, GA, and all the aforementioned parties in original disclaimer agreed on at entry to the website, of any such liability. For Zoning verification including special exceptions contact the Planning & Development Department at 706-821-1796.

Parcel Information

Tax District	01 Urban	2013 Millage Rate	0.000000
Prop Type Desc	U2-PUBLIC UTILITY	Homestead Exemption	No S0
Tax Neighborhood	09C030 HARSBRG/SUMVI	Acres	0.89 Vacant Yes
Subdivision Name		Subdivision Block	
Subdivision Phase	Section	Subdivision Lot	
Water	No Water	Sewer	No Sewer
Electric	Electricity	Gas	Tank Gas
Topography	Rolling	Drainage	Good
Road Class	County	Parcel Road Access	Paved

Community Information (Augusta Info & Services Dial 311)

Commission District	1 William Fennoy	Super District	9 Marion Williams
School District	1 Marion E. Barnes	Super School District	9 Venus Cain
Solid Waste Hauler	Advanced	Solid Waste Fee	Contact (706) 592-3200
Solid Waste Service Day	Tues	Street Sweeping Week	N/A
Street Light Fee	Contact: (706) 821-1829	Non-Emergency Police	(706) 821-1080

Multi-Owners

Associated Parcels

2014 Tax Year Value Information

Land Value	Improvement Value	Accessory Value	Total Value	Previous Value
$1	$0	$0	$1	$1

Land Information

Value	Description	Calculation Method	Size
$38,768	C030 -CGB9 -SF	Square Foot	SqFt: 38768 Acres: 0.89

Sales Information

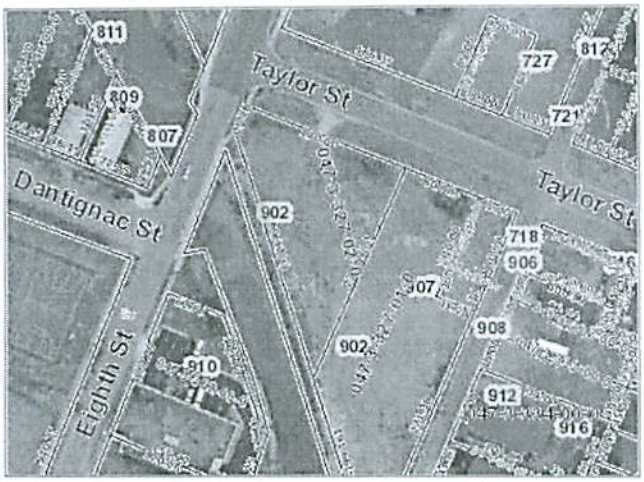
Sale Date	Deed Book	Plat Page	Price	Reason	Grantor	Grantee

Parcel Number	Site Address	City State Zip
047-3-327-01-0	902 TAYLOR ST	AUGUSTA, GA 30901

08/07/1991	A1 1251	$0	Non-Market	ATLANTA GAS LIGHT CO	ATLANTA GAS LIGHT COMPANY

Augusta, GA - Property Report

Parcel Number	Site Address	City State Zip
047-3-327-02-0	902 TAYLOR ST	AUGUSTA, GA 30901



Owner Information

Owner Name	AUGUSTA & SUMMERVILLE RR
Mailing Address	500 WATER ST
City State Zip	JACKSONVILLE, FL 32202-4423

Augusta GEORGIA

Disclaimer: By using this website the User shall constitute an agreement to release Augusta, GA, and all the aforementioned parties in original disclaimer agreed on at entry to the website, of any such liability. For Zoning verification including special exceptions contact the Planning & Development Department at 706-821-1796.

Parcel Information

Tax District	01 Urban	2013 Millage Rate	0.000000
Prop Type Desc	U3-PUBLIC UTILITY	Homestead Exemption	No S0
Tax Neighborhood	09C030 HARSBRG/SUMVI	Acres	0.63 Vacant Yes
Subdivision Name		Subdivision Block	
Subdivision Phase	Section	Subdivision Lot	
Water	No Water	Sewer	No Sewer
Electric	Electricity	Gas	Tank Gas
Topography	Rolling	Drainage	Good
Road Class	County	Parcel Road Access	Paved

Community Information (Augusta Info & Services Dial 311)

Commission District	1 William Fennoy	Super District	9 Marion Williams
School District	1 Marion E. Barnes	Super School District	9 Venus Cain
Solid Waste Hauler	Advanced	Solid Waste Fee	Contact (706) 592-3200
Solid Waste Service Day	Tues	Street Sweeping Week	N/A
Street Light Fee	Contact: (706) 821-1829	Non-Emergency Police	(706) 821-1080

Multi-Owners

Associated Parcels

2014 Tax Year Value Information

Land Value	Improvement Value	Accessory Value	Total Value	Previous Value
$5,200	$0	$0	$5,200	$5,200

Land Information

Value	Description	Calculation Method	Size
$27,443	C030 -CGB9 -SF	Square Foot	SqFt: 27443 Acres: 0.63

Sales Information

Sale Date	Deed Book	Plat Page	Price	Reason	Grantor	Grantee

Augusta, GA - Property Report

Parcel Number	Site Address	City State Zip
047-3-327-02-0	902 TAYLOR ST	AUGUSTA, GA 30901

11/21/1991	A1 1497	$0	Non-Market	AUGUSTA & SUMMERVILLE R R	AUGUSTA & SUMMERVILLE R R
08/14/1991	A1 1277	$0	Non-Market	ATLANTA GAS LIGHT COMPANY	AUGUSTA & SUMMERVILLE RR
08/07/1991	A1 1251	$0	Non-Market	ATLANTA GAS LIGHT CO	ATLANTA GAS LIGHT COMPANY

Report Prepared For:

Atlanta Gas Light Company
Ten Peachtree Place
Atlanta, GA 30309

2012 Site Conceptual Model Addendum
Former Manufactured Gas Plant Site
Augusta, Georgia
HSI #10132

Revised: February 2012

Prepared By:

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February 17, 2012
Date

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February 17, 2012
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GEOLOGIST
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"I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground-water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction."

Wallid M. Kazi, P.G., Ph.D.
President and Project Principal

2/17/12
Date

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ACRONYMS

AGLC	Atlanta Gas Light Company
ARAR	Applicable or Relevant and Appropriate Requirements
ANIC	Augusta Neighborhood Improvement Corporation
AOC	Area of Concern
ARC	Augusta-Richmond County
ATSDR	Agency for Toxic Substance & Disease Registry
bgs	Below Ground Surface
BDWP	Basis of Design Work Plan
BK	Background Soil Sample
BOD	Basis of Design
BPLM	By-Product Like Material
BR	Bedrock
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
BTU	British Thermal Unit
CACR	Corrective Action Closure Report
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cm/s	Centimeter per Second
CME	Christian Methodist Episcopal Church
COC	Constituent of Concern
COI	Constituent of Interest
DDSP	Depth Discrete Sampling Port
DNAPL	Dense, Non-Aqueous Phase Liquid
DNR	Department of Natural Resources, Georgia
EA	Environmental Assessment
ECM	Environmental Cost Management, Inc.
EDR	Environmental Data Resources, Inc.
EOX	Extractable Organic Halides
EPD	Environmental Protection Division, Georgia
ESA	Environmental Site Assessment
FS	Feasibility Study
ft	Feet
GAC	Granulated Activated Carbon
GBI	Georgia Bureau of Investigation
GP	Geoprobe™ or Stratiprobe™ Boring

HA	Hand Auger
HSI	Hazardous Site Inventory
HSRA	Hazardous Site Response Act
HWMA	Hazardous Waste Management Act
ICAP	Interim Corrective Action Plan
IRM	Interim Remedial Measures
ISCO	In-situ Chemical Oxidation
ISS	In-situ Solidification
K	Hydraulic Conductivity
Ksat	Hydraulic Conductivity – Saturated
lb	Pound
lbs	Pounds
LNAPL	Light, Non-Aqueous Phase Liquid
MCL	Maximum Contaminant Level
MDL	Method detection Limit
mg/Kg	Milligram per Kilogram
mg/L	Milligrams per Liter
µg/L	Micrograms per Liter
MACTEC	MACTEC Engineering and Consulting, Inc.
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
MW	Monitoring Well
NAPL	Non-Aqueous Phased liquid
NAVD	North American Vertical Datum of 1988
NCP	National Contingency Plan
ND	Non-Detect
NGVD	National Geodetic Vertical Datum of 1929
O&M	Operation & Maintenance
OLM	Oil Like Material
ORC®	Oxygen Release Compound
OU	Operable Unit
OVM	Organic Vapor Monitor
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons (also known as or Polynuclear Aromatic Hydrocarbons)
Pb	Lead
PCE	Perchloroethylene

PID	Photo Ionization Detector
ppb	Parts per Billion
ppm	Parts per Million
PSC	Public Service Commission, Georgia
PVC	Poly Vinyl Chloride
PWR	Partially Weathered Rock
PZ	Piezometer Well
QA/QC	Quality Assurance/Quality Control
RI	Remedial Investigation
RL	Reporting Limit
ROW	Right of Way
RRS	Risk Reduction Standards
RW	Recovery Well
SACAER	Semi-Annual Corrective Action Effectiveness Report
SCM	Site Conceptual Model
SEB	Southeastern Bituminous Company
SI	Site Investigation
SVOC	Semi-Volatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethylene
TCL	Target Compound List
TLC	Third Level Canal
TLM	Tar Like Material
TZ	Transition Zone Well
UBL	Upper Background Limit
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
UV	Ultraviolet
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This SCM addendum was prepared to address comments from Georgia Environmental Protection Division (EPD) on the revised SCM that was submitted to the EPD on December 28, 2009. This SCM addendum addresses identified data gaps and the results of the vapor intrusion evaluation and well installations.

The following major conclusions were drawn based on this SCM Addendum, the field investigations of 2010, and on-going groundwater monitoring at the site (see Section 4 for a complete list):

- The BPLM source model was updated with data from the 2010 data gap investigation and Galliard Formation and Bedrock well installations. BPLM extent increased north of the CME Church building (TW-1); along Walton Way near the former Car Wash (MW-600); and a small area near the GP Vault (MW-603). In general, these areas were in portions of the study area with known residual or saturated BPLM impacts and thus consistent with the 2009 Revised SCM.
- An important finding from the 2010 well installations is that the MW-513BR benzene and naphthalene concentration is an order of magnitude less than that in either MW-306BR or MW-318, thereby suggesting the possibility that the groundwater impacts in the MW-318 area may be from a separate source.
- In terms of potential exposure pathways for vapor intrusion (VI), a vapor intrusion evaluation consisting of soil vapor sampling was performed. The evaluation of this data per EPA Vapor Intrusion Guidelines using an Environmental Indicators (EI) Determination resulted in risk levels exceeding 10^{-6} for carcinogens. Therefore, indoor air sampling was recommended at all five buildings as the next step in the VI evaluation process. AGLC is in the process of preparing a work plan for submittal to EPD.

1 INTRODUCTION

The Atlanta Gas Light Company (AGLC) retained Environmental Cost Management, Inc., (ECM) to prepare this Site Conceptual Model (SCM) Addendum for the former manufactured gas plant (MGP) site (Site) in Augusta, Georgia (Figure 1-1). AGLC proposed a "Site-wide Approach" in a letter dated March 6, 2009, to support a more comprehensive understanding of the Site to ensure that AGLC selects the most appropriate remedial strategy. The approach included the development of a Site Conceptual Model, a fate and transport groundwater model, followed by the development of a comprehensive feasibility study. The Site-wide Approach was approved by EPD in a March 18, 2009 meeting, as documented in a letter dated March 19, 2009. The first portion of this Site-wide Approach was accomplished with the submittal of a draft and then revised SCM in 2009. The revised SCM submitted to the EPD on December 28, 2009 (2009 Revised SCM) was conditionally approved by EPD in a letter dated March 19, 2010. This SCM Addendum reflects additional investigations and ongoing semiannual groundwater monitoring since 2009.

> **This SCM Addendum provides an update to the 2009 Revised SCM, but does not include materials, including figures and tables, which have not changed. The significant background and information provided in the 2009 Revised SCM is included as Appendix J electronically on CD. Note that throughout this document, section titles retain the same numbering as the 2009 Revised SCM. A skipped section means that there were no changes to that section, and the reader should refer back to the 2009 Revised SCM.**

Since the 2009 Revised SCM identified data gaps, work plans were submitted to EPD for review prior to AGLC conducting field investigations in late 2010 to close the data gaps. Results of those field investigations were submitted to the EPD in the documents entitled: *Data Gap Investigation and Monitoring Well Installation/Decommissioning Report*, dated February 14, 2011 and the *Vapor Intrusion Evaluation Report (VIER)*, dated January 31, 2011. The EPD commented on the VIER in a letter dated April 15, 2011. The VIER was revised and commented on by EPD a number of times throughout 2011, as described further in Section 2.3.13. The latest Revised VIER (RVIER) was submitted on January 12, 2012. The January 2012 RVIER recommends indoor air sampling, and a work plan is currently being prepared for submitted to the EPD. With regard to the *Data Gap Investigation and Monitoring Well Installation/Decommissioning Report*, the EPD provided comments on November 21, 2011, and AGLC provided a response on December 21, 2011. In this response, AGLC committed to providing this SCM Addendum by February 17, 2012.

This SCM Addendum has been updated with the new information gathered during the 2010field investigations, and consistent with the reporting on these investigations provided to the EPD in 2011 and early 2012.

A revised schedule reflecting the current status of project, recent EPD correspondence from November 2011, and a conference call with EPD on December 19, 2011 was provided by AGLC to the EPD on January 19, 2012. It is also provided as Figure 1-2. In the near term, this schedule provides for the submittal of this SCM Addendum by February 17, 2012 (this document), a work plan for vapor intrusion indoor air sampling by Friday, February 24, 2012, and the fate and transport groundwater model report by June 1, 2012. In addition, the schedule proposes a meeting in early March (on or about

March 1st) to discuss this SCM Addendum and the initial results of the groundwater modeling effort. Note that deliverables further out are dependent on the EPD review times assumed in the schedule.

1.1 PURPOSE OF THE SITE CONCEPTUAL MODEL

The purpose of the SCM is to develop a comprehensive understanding of the Study Area as well as provide an overall framework to understand the MGP contaminants of interest (COIs), pathways travelled and where they reside now. The 2009 Revised SCM, and this SCM Addendum serve as inputs to the upcoming groundwater flow and transport model and will assist AGLC in selecting and screening remedial technologies in the FS.

This SCM Addendum is submitted to:

i) update the EPD on the comprehensive understanding of the Site gained to date by AGLC, and specifically to include data generated from the addition investigations conducted since the 2009 Revised SCM;

ii) enable AGLC to establish the necessary inputs for a numeric groundwater flow model that will simulate fate and transport within appropriate spatial and temporal boundaries; and

iii) develop a comprehensive FS that will enable AGLC to select the most appropriate remedial technology for groundwater in the Study Area.

1.2 SCOPE

The scope of work for this SCM Addendum was to incorporate the results of investigations to address potential data gaps in an updated SCM document.

As part of the EPD approval letter dated March 19, 2010, EPD noted that an additional iteration of the revised SCM would be submitted to EPD for review upon completion of the investigation to address identified data gaps and the results of the vapor intrusion evaluation and well installations. This SCM Addendum reflects data and information from those investigations. Specifically, it includes revisions based upon the following:

- data gap investigation borings and temporary wells;
- installation and sampling of additional Galliard wells;
- installation and sampling of the additional bedrock well;
- vapor intrusion evaluation results based on the latest RVIER;
- review and inclusion of semiannual groundwater monitoring data through the January 2011 sampling event, and modification of conclusions, where appropriate; and
- updated evaluation of the current groundwater monitoring well network with recommendations.

2 SUMMARY OF PROJECT – 2010 TO DATE

The following sections provide a summary of project activities and any conditions that have changed since the submittal of the 2009 Revised SCM. It includes a summary of property status, focusing on any properties where ownership status has changed, followed by a discussion of investigation work completed and reported on since the 2009 Revised SCM.

2.2 OFF-SITE PROPERTIES DESCRIPTION

2.2.1 AGLC-Owned Off-site Properties and Land Use

A description of the history and land use of the off-site parcels owned by AGLC was provided in the 2009 Revised SCM. There have been changes to the ownership status in Block E, specifically Parcel 047-3-228, the location of the treatment system shed, is now owned by AGLC, and Parcel 047-3-227, formerly owned by AGLC is now owned by Miracle Making Ministries. This change is reflected below and in revised Figure 1-3.

<u>Block E, Parcels 047-3-228, 047-3-229, 047-3-230, and 047-3-231: Trinity Christian Methodist Episcopal (CME) Church and Adjoining Properties:</u>

The Trinity CME Church property is located east of the Northern Parcel and on the corner of Eighth and Taylor Streets. The church parcels (047-3-230 and 231) were acquired by AGLC in the late 1990s, along with some additional parcels in Block E. Currently, AGLC owns 047-3-228, in addition to the church parcels. Parcels 047-3-227, 047-3-229, 047-3-236 and 047-3-237, acquired by AGLC in the late 1990s, are now owned by Miracle Making Ministries.

2.3 SUMMARY OF RECENT INVESTIGATIONS

This section summarizes investigation activities that have occurred since the 2009 revised SCM. A chronology of these events is provided in the next section; followed by a brief summary of each investigation. Investigations prior to 2010 are summarized in the 2009 revised SCM.

2.3.1 Chronology of Recent Investigations

A chronology of these investigations in 2010 and 2011 (since the 2009 Revised SCM) appears below.

2010: In October, a field data gap investigation was conducted to collect data around the perimeter of the BPLM footprint, refine the SCM source model and to refine the groundwater model.

2010: Additional monitoring wells were installed during October in the Galliard Formation and Bedrock Unit.

2010: Several monitoring wells were decommissioned in October in accordance with the approved December 2009 SCM.

2010: In October, a field investigation was performed to evaluate the potential for vapor intrusion at various locations.

The following sub-sections describe in more detail the investigations listed above.

2.3.11 Data Gap Investigation

Based on the recommendations of the December 2009 revised SCM, a data gap investigation was performed by ECM and ERM in October 2010 to collect data around the perimeter of the BPLM footprint to better define the BPLM extent and refine the BPLM source model in the SCM. In addition, the collection of groundwater grab samples at these points provided additional data to refine the groundwater model. A total of 8 direct-push borings (TW-1 thru TW-8) were advanced at various location on and offsite. The information is documented in the report entitled: *Data Gap Investigation and Monitoring Well Installation/Decommissioning Report*, dated February 14, 2011. The key findings of this report include the following:

- Saturated BPLM was observed in TW-1, MW-600, and MW-601, and residual BPLM was observed in TW-3. These BPLM observations were in or near areas where BPLM has been documented during previous investigations.
- The presence of BPLM in TW-1, TW-3 and MW-601 expanded the saturated and residual BPLM extent boundary to the north, within Block E. The presence of saturated BPLM in MW-600 resulted in an expansion of the saturated extent on the north side of Walton Way.
- BPLM was not observed in any other borehole. Borings TW-2, and TW-4through TW-8, which did not contain BPLM, served to confirm and refine the BPLM extent in the overburden.

The results of the Data Gap Investigation, including boring locations and revised BPLM extent is shown on Figure 3-37. The stratigraphic data and BPLM extent has also been incorporated in the lithologic and BPLM extent models. This is reflected in the updates to Tables 3-2, 3-3 and 3-4, and Appendices A, B and C-2 in the SCM Addendum.

2.3.12 Well Installation and Decommissioning Investigation

In October 2010, based on the recommendations of the 2009 Revised SCM, ECM and ERM installed additional monitoring wells in the Galliard Formation (MW-600, MW-601, MW-602 and MW-603) and in the Bedrock Unit (MW-513BR). Monitoring wells MW-600 and MW-601 were installed to better characterize the interior portion of the Galliard plume. Monitoring well MW-602 was installed to delineate the Galliard plume to the southwest, and MW-603 was installed to delineate the Galliard plume downgradient of the Georgia Power vault on the corner of Ninth and Fenwick Streets. Bedrock well MW-513BR was installed to provide additional information regarding the bedrock plume between the main body of the plume (e.g. existing well MW-306BR) and the monitoring well MW-318 to the north. In addition, five monitoring wells (MW-04, MW-18, MW-201, MW-210, MW-407D) were decommissioned during this phase of work. One well planned for decommissioning (MW-305) was found to be destroyed already. The information is documented in the report entitled: *Data Gap Investigation and Monitoring Well Installation/Decommissioning Report*, dated February 14, 2011. The wells were sampled in December 2010, as well as incorporated into the routine semiannual monitoring events. The key findings of this report include the following:

- Saprolite was encountered across the investigation area at depths ranging from 23 feet bgs to 32 feet bgs. Saprolite was shallower in the north and northwest

portions of the investigation area (MW-513BR, MW-602, and TW-8), especially near the North Parcel ISS mass, and deeper in the southeast (TW-2, TW-4, and MW-602). This is consistent with the 2009 Revised SCM..

- Residual BPLM was encountered in MW-603, the well installed approximately 50 feet downgradient of the Type V Area surrounding the Georgia Power vault. This residual BPLM is likely associated with impacts remaining in place as part of the Type V Area.
- Wells MW-600 and MW-601 contain the highest concentrations of COI in groundwater of the new wells sampled, including elevated concentrations of benzene (90,000 µg/L and 16,000 µg/L, respectively), and naphthalene (160,000 µg/L and 7,600 µg/L, respectively), in December 2010. These wells were installed in the central portion of the Galliard plume, and so the elevated concentrations are expected. Continued monitoring of these wells as part of semiannual monitoring event will help to establish trends, and allow comparison with existing wells in the groundwater network at the same point in time.
- Bedrock well MW-513BR has a benzene concentration of 42 µg/L (December 2010) in groundwater, but no other Type 1 RSS exceedances. This is significantly lower than the benzene concentration of 1,100 µg/L observed in MW-318 to the north during the July 2010 sampling event, or the benzene concentrations of 730 µg/L (MW-306BR) and 3,600 µg/L_(MW-511BR) to the southwest during the same event. This supports the position that the groundwater impacts in the MW-318 area are separate, or at a minimum include contributions from a separate source, from the impacts in the main area of the groundwater plume near Walton Way and 8th Street. This finding is discussed further in Section 3.10.3.

2.3.13 Vapor Intrusion Evaluation

In October 2010, based on EPD's request to add this recommendation to the December 2009 SCM, ECM and ERM conducted a field investigation to evaluate the potential for vapor intrusion at various locations on and offsite. The results were provided in the report entitled: *Vapor Intrusion Evaluation Report*, dated January 31, 2011. The report concluded that no vapor intrusion pathway originating from the delineated alluvial groundwater plume to occupied buildings in the site area under the residential use scenario exists at this site.

The EPD responded in a letter dated April 15, 2011, requesting that AGLC continue the evaluation with a screening assessment under Question 6 of the 2002 USEPA VI Guidance (USEPA Guidance). AGLC responded to these comments with a revised report on May 16, 2011, providing additional technical justification for the use of the attenuation factors used, and recommending no further action. The EPD responded on August 26, 2011, re-iterating the need for a screening assessment.

AGLC responded by conducting a site-specific screening assessment, specifically an Environmental Indicator (EI) determination under Question 6(b) of the USEPA Guidance. The EI determination evaluated the three constituents that exceeded Target concentrations, benzene, ethylbenzene and trichloroethene using the highest soil gas concentrations observed, and standard attenuation factors for soil gas in the model. The model results indicated that the calculated risk levels were one or two orders of

magnitude below the generally established lifetime risk level of 10^{-6} for carcinogens, and therefore the VI pathway was incomplete, requiring no further action. This finding was documented in a revised VIER (RVIER) dated September 21, 2011. .

The EPD responded to the RVIER on November 21, 2011, requesting that the buildings be evaluated individually, and that an attenuation factor of 1 be used in the model to address EPD concerns regarding the non-applicability of the Johnson & Ettinger model to the site based on the presence of unlined crawlspaces beneath the buildings. Based on subsequent discussions with EPD in December 2011, AGLC submitted an RVIER on January 12, 2012. The January 2012 RVIER was revised based on EPD's comments, and the results of the EI Determination included risk levels exceeding 10^{-6} for carcinogens. Therefore, indoor air sampling was recommended at all five buildings as the next step in the VI evaluation process. AGLC is in the process of preparing a work plan for submittal to EPD.

2.6 POTENTIAL OFF-SITE SOURCES

As part of the 2009 Revised SCM, an EDR database search was conducted for records of agency-directed or voluntary investigations and remediation projects within a one-mile radius of the Augusta MGP Site, to assess the potential for non-MGP sources of impacts (see results in Appendix D of the 2009 Revised SCM). The results of the database search indicate it is unlikely that industry sources in the immediate vicinity have contributed to MGP BPLM at the Augusta MGP Site. However, certain locations in the search radius may have been impacted by constituents common to MGP residuals such as VOCs, PAHs, and lead (and other elemental metals) from independent sources, such as gas stations, the burning of leaded gasoline by vehicles, railroad operations, fuel storage tanks, the operations of foundry and metal plating/processing facilities, automobile repair shops, and residential uses (RETEC, 2003). Based on a review of Sanborn Maps (Appendix I), there was a long history of railroad operations (from prior to 1884 through at least the 1950's in Block N (current Civic Center), Block M (east of 8th Street and north of Fenwick Street), and the block to the west (between 8th and 9th Streets, north of Fenwick Street).

As part of the additional well installation activities, bedrock well MW-513BR was installed between the AGLC MGP Site and MW-318, located to the north in Block N. The concentrations of benzene and naphthalene in MW-513BR have consistently been lower than wells in the AGLC MGP Site source area (e.g. MW-511BR) or MW-318 to the north. As discussed in Section 2.3.12, this provides strong evidences for a separate source distinct from the AGLC MGP site. Given the former rail yard operations, this is not surprising. AGLC has collected groundwater samples for chemical fingerprinting during the January 2012 semiannual monitoring event to evaluate the nature of other source(s) in this area. The dissolved phase sampling results and chemical fingerprinting results are discussed in Section 3-10-3.

2.7 SUMMARY OF REMEDIATION ACTIVITIES

2.7.9 Georgia Power Vault (OU-1 and OU-2)

During the removal and replacement culverts at the intersection of Ninth and Fenwick Streets as part of Third Level Canal improvements, BPLM was encountered. Consistent

with other reaches of the Canal, AGLC excavated the BPLM from this area within the canal corridor, however, some BPLM could not be removed, because this would have involved relocation of a very large Georgia Power vault, which was not feasible. Due to the remaining BPLM, the localized area adjacent to the vault was certified as Type 5 in the Certification of Compliance submitted as part of the Corrective Action Closure Report (MACTEC, 2009, CACR). In an Agreement with the City, if removal or relocation of the Georgia Power Vault is performed, AGLC will remediate the BPLM impacts adjacent to the vault at that time. The remaining work activities associated with removal of the 9th and Fenwick Streets culverts and BPLM excavation were included in the Third Level Canal Corrective Action Closure Report and Compliance Status Report (MACTEC, 2009).

During the 2010 Data Gap Investigation, a fourth Galliard Formation well (MW-603) was completed during investigative activities. The well was installed south of Fenwick Street, east of 9th Street, approximately 50 feet downgradient of the GP Vault Type 5 Area, in order to satisfy the requirements of continued action monitoring for BPLM-impacted soil remaining *in situ*. EPD requested this well in a letter dated July 21, 2010. Residual BPLM was encountered in MW-603, and is likely associated with impacts remaining in place as part of the Type V Area. Well MW-603 will continue to be monitored as part of the semiannual monitoring program.

2.7.10 Fractured Bedrock Groundwater Recovery System

The system consists of two bedrock extraction wells (MW-307BR and MW-308BR) and two, 2000-pound granular activated carbon (GAC) treatment vessels. It began operation in November of 2006. Performance and operations data for the extraction system, including the mass of benzene and naphthalene removed by the system (calculated from the total volume of extracted groundwater and the concentrations observed in the extraction wells) are reported to EPD in the SCAERs. As of January 2011, the system has recovered an estimated combined total of 619 kilograms (1364 pounds) of benzene (395.22 kg) and naphthalene (223.53 kg).

3 SITE CONCEPTUAL MODEL

3.7 UPDATE TO SITE SPECIFIC LITHOLOGIC AND STRATIGRAPHIC MODELS

The lithologic and stratigraphic models have been updated with the new data collected as part of the data gap investigation and monitoring well installations. In general, the new information is consistent with the previous models. Table 3-2 provides an updated list of the borings/wells used for the lithologic, stratigraphic and BPLM models. Tables 3-3 and 3-4 provide the statistics for the lithologic and stratigraphic models, respectively. Appendix A provides the updated data used for the lithologic model, and Appendix B provides the updated data used for the stratigraphic model.

3.7.1 Lithologic Model

Lithologic data from the 2010 data gap investigation was assigned a Unified Soil Classification System (USCS) code at each depth interval. Soil descriptions, as logged by the geologist, were also retained for each depth interval, as available. A lithologic key was then applied to those USCS codes to symbolize the model results. The list of borings/wells used for the lithologic, stratigraphic and BPLM models (Table 3-2) was updated. Appendix A was also updated and includes these data.

As part of the updates for the SCM Addendum, the model software processed the data at nodes that were computed on 20 x 20 x 2 foot voxels. The voxel values were chosen to identify thin intervals of clay and sand. Table 3-3 summarizes the details of the lithologic model statistics.

3.7.2 Stratigraphic Model

Once the lithologic data were updated using the results from the 2010 data gap investigation, picks on the stratigraphic units were selected. The units for the model included the Fill, Alluvium, Galliard (sands), Saprolite and Bedrock. The data used for the stratigraphic model is included in Appendix B. The details of the stratigraphic model statistics are included in Table 3-4. During the 2011 update of the SCM, the model nodes were computed on 20 x 20 x 2 foot voxels. The updated 3D stratigraphic model is presented in Figures 3-4 through 3-9.

A set of updated cross-sections derived from the lithologic and stratigraphic models illustrates the Study Area-specific geology. Figure 3-10 shows the transect locations. The transect lines for cross sections A-A' and B-B' were modified to include new wells or borings. For section A-A' (Figure 3-11 and 3-14), the computed and conceptual lithologic cross sections now include MW-513BR. For section B-B' (Figures 3-12 and 3-15) the computed and conceptual lithologic cross sections now include MW-603 and TW-01. Section C-C' (Figure 3-13 and 3-16) did not change and are not included in the SCM Addendum.

The primary observations from the 3D models are that the lithologic and stratigraphic information gathered during the 2010 data gap investigation and installation of new monitoring wells in the Galliard Formation and Bedrock unit was consistent with the

information in the December 2009 SCM. The additional data provided greater detail to some of the cross sections, but the overall stratigraphy was unchanged.

3.8 SITE-SPECIFIC HYDROGEOLOGY

The local hydrogeology was characterized using water elevations collected from wells located in the Study Area. Based on the interpreted lithologic sequences, permeability determinations, and analysis of groundwater elevation data, four aquifers exist across the majority of the Study Area.

3.8.1 Alluvium Aquifer

To the east of the Third Level Canal, a shallow unconfined aquifer is present in the fill and alluvial sands. Separating this shallow unconfined aquifer from the deeper semi-confined aquifer is an extensive clay unit within the alluvial deposits. Prior to ISS, groundwater flow in the alluvium and Galliard was generally to the east (see 2009 Revised SCM). The ISS masses on the Northern Parcel and Car Wash Area have created a barrier to groundwater flow due to the ISS hydraulic conductivity being orders of magnitude lower than the surrounding alluvium. The most recent water elevations for the alluvium (January 2011) are shown on Figure 3-22. Current groundwater flow appears to be controlled by a local groundwater recharge at the Study Area.

3.8.2 Galliard Formation Aquifer

The deeper semi-confined aquifer consists of the Galliard sand. A more detailed description of the hydrogeology of the Galliard is provided in the 2009 Revised SCM. Figure 3-21 shows the isopachyte (thickness) map for the Galliard Formation (sands) at the Study Area. An outline of the Galliard benzene plume (January 2011, 100 ug/L benzene contour is used for illustration) is shown overlain on the isopachyte map. The benzene plume extent appears to be constrained to the west along the north-northeast to south-southeast trend line where the Galliard thins considerably (see Figure 3-21).Review of the groundwater contours available to date suggests that the historic general groundwater flow direction was from the west to the east. However, when the ISS was implemented in 2004, it altered the local groundwater gradient due to the ISS mass deflecting groundwater to flow around it.

The post-ISS local flow pattern in the Galliard Formation inferred from January 2011 data (Figure 3-23) indicates an easterly flow, with a steeper ground water gradient following roughly along the canal west of the Northern Parcel, with flow around the Northern Parcel to the north and south. There is a near stagnation zone encompassing the site and the area to the east. The previous groundwater event (July 2010) also showed this zone of stagnation, but also more pronounced mounding southwest of the Northern Parcel. Earlier events from January 2008 through January 2010 tended to show mounding from the Northern Parcel, and somewhat to the east, with flow radially outward from these areas. Groundwater levels overall were one to two feet higher than during the January 2011 event, and this change may account for the observed mounding. Groundwater flow is complex in the immediate vicinity of the ISS masses, leading to some variability in localized groundwater flow patterns. Groundwater flow in the Galliard is being influenced by the extreme low hydraulic conductivity of the ISS mass in the Northern Parcel and Car Wash area. Seepage velocity in Galliard ground water outside the ISS mass is estimated to range from 8.5×10^{-4} to 1.1×10^{-2}ft/day.

3.8.3 Saprolite Aquifer

A more detailed description of the hydrogeology of the saprolite aquifer is provided in the 2009 Revised SCM. The most recent potentiometric surface for the saprolite (January 2011) is shown on Figure 3-24.

The January 2011 ground water elevation data for the saprolite unit indicates ground water flow trends to the east-southeast toward bedrock pumping well MW-307BR, and to the north-northeast toward bedrock pumping well MW-308BR. The ground water extraction and treatment system has been continuously operational during this period. Data from 2008-2011 groundwater monitoring reports suggest that the bedrock extraction system influences ground water flow within the saprolite. Any ground water flow in saprolite (or bedrock) interpreted near or adjacent to the ISS mass is assumed to flow under the mass. Since ISS was keyed only into the top of saprolite and not completed through the entire unit, minimal groundwater flow is possible in the saprolite unit. Seepage velocity in saprolite ground water is estimated to be 5.6×10^{-4} ft/day. The elevation of ground water in saprolite is lower than the elevation of the bottom of the ISS mass and therefore, interpreted ground water flow is beneath the ISS mass.

3.8.4 "Transition Zone" and Bedrock Aquifer (section 3.8.4)

A more detailed description of the hydrogeology of the transition zone and bedrock aquifer is provided in the 2009 Revised SCM. The most recent potentiometric surface for the bedrock (January 2011) is shown on Figure 3-25. Based on January 2011 data, ground water flow in bedrock appears to be toward MW-307BR and MW-308BR (Figure 3-25). The ground water recovery well at MW-307BR is apparently capturing ground water in the bedrock from up to 900 feet away to the northeast as is evidenced by the ground water trough at MW-325.

3.10 UPDATE TO SOURCE IMPACTS

The methodology of the source impact evaluation is unchanged from the 2009 Revised SCM. The discussions in the following sections focus on summarizing the source impacts and noting the effect of new data on the source impacts nature and extent.

3.10.1 By Product-Like Material

The 2009 Revised SCM provides a detailed discussion of the term "By Product-Like Material (BPLM), categories of BPLM and the how these impacts were modeled to develop the extent of BPLM impacts. The methodology is unchanged, and this discussion can be found in Section 3.10.1 of the 2009 Revised SCM.

<u>BPLM Remediation</u>

Based on information contained in the corrective action closure reports, the Soil Removal Completion Report (Retec, 1998) and the Remedial Investigation activities, impacts and BPLM observations were removed to the depth shown on ISS diagrams and excavation maps in order to compare pre- and post-remediation locations and results. However, impacts and BPLM observation points were not removed from within the ISCO footprint, unless identified as within an excavation area. Because ISCO treated BPLM to some extent, as evidenced by the ISCO activities meeting the performance criteria in the BODWP (MACTEC, 2002), it is important to recognize that the figures

showing impacts and BPLM observations, and BPLM extent, will conservatively overstate the BPLM remaining in ISCO treatment areas.

Comparison: BPLM (Prior vs. Post Remediation) – Alluvium:

Figure 3-35 has been updated with the additional wells and borings installed in 2010 to show the locations of impacts and BPLM in the Alluvium before and after ISS and excavations. It shows that the ISS treatment areas have significantly immobilized the BPLM. However, known BPLM appears to remain in the saturated zone along the north property boundary of the Northern Parcel (areas where ISS could not be performed either due to overhead utility obstruction or outside the ISS basis of design work plan); under Walton Way, between the Northern Parcel and Block A (former Car Wash); under 8th Street between the Northern Parcel and the CME Church in Block E, and on the west-central portion of Block E. During the 2010 well installations, residual BPLM was observed in TW-3 at 13 fbg north of the CME Church. Residual BPLM was also observed in MW-603 near the GP Vault in peat at a depth of 19 to 23 fbg immediately above the saprolite. As Galliard sand was not observed in this boring, this zone was also classified as alluvium. No other BPLM (residual or saturated) was observed in the alluvium in borings or wells installed in 2010.

Comparison: BPLM (Prior vs. Post Remediation) – Galliard and Alluvium:

Figure 3-36 has been updated with the additional wells and borings installed in 2010 to show the locations of impacts and BPLM in the Galliard and Alluvium before and after ISS and excavations. It shows that the ISS treatment areas have significantly remediated the BPLM. However, some known residual BPLM appears to remain at relatively deeper depths in the saturated zone in the Galliard along the north property boundary of the Northern Parcel (areas where ISS could not be performed either due to overhead utility obstruction or outside the ISS basis of design work plan); under Walton Way, between the Northern Parcel and Block A (former Car Wash); under 8th Street between the Northern Parcel and the CME Church in Block E; on the west-central portion of Block E. During the 2010 well installations, BPLM saturation was observed in new monitoring wells MW-600 (near the former Car Wash) and MW-601 (north of the CME Church). BPLM was also observed in the 2010 data gap investigation borings TW-1 (saturation) on the north side of the CME Church structure. The residual BPLM observed in the alluvium in MW-603 and TW-1 is noted above. These findings are all generally consistent with the 2009 Revised SCM.

3.10.2 Post-Remediation BPLM

The 3D BPLM source model was updated with data from the 2010 data gap investigation and installation of new monitoring wells. The model inputs, stored as interval data, were modeled using the Inverse Distance-Weighted algorithm. The Inverse-Distance algorithm uses a weighted average approach to compute node values, offers user control over the horizontal & vertical weighting of the control points, and allows for directional searching around the control points. Using Inverse-Distance in general, a matrix of voxels (boxes) are created over the entire Study Area. The dimension of each voxel was 20 feet square by 2 feet deep. There were a total of 3,036,999 voxels computed in the model for the study area.

Figure 3-37 shows the interpolated extent of post remediation BPLM in the alluvium and Galliard units. There were no changes to BPLM in the source model for the saprolite

and bedrock units, based on observations from the 2010 boring logs. The post-remediation BPLM extents exclude any BPLM observations where ISS and excavation occurred, because these impacts were considered as remediated. However, BPLM observations in the areas where ISCO was conducted are included in the models, and are shown on the referenced figures. This reflects the very conservative assumption that ISCO treatment had no effect on the BPLM. ISCO did meet the performance criteria and reduced mass of BPLM, so the BPLM extent in the Figures 3-37 (and Figures 3-38 and 3-39 of the 2009 Revised SCM) likely overstate the remaining BPLM in the ISCO-treated areas.

Figure 3-37 provides the interpolated extent of BPLM in the Alluvium and Galliard. Available observations of BPLM in the alluvium and Galliard in the BPLM source model are included from all depths, and the data are used to generate the extent of residual and saturated BPLM. Again, please note that Figures in the SCM conservatively depict BPLM within the ISCO treatment areas based on boring record observations prior to ISCO treatment.

The conclusions regarding BPLM in the Galliard are as follows:

- Between the Northern Parcel and Block E/CME Church under 8th Street;
- Under Walton way between the Northern Parcel and Block A. BPLM observed in MW-600 (installed in 2010) is consistent with this understanding;
- Under portions of Block A:
- Multiple locations in Block E. Of the four new boreholes near the CME Church, only TW-1 was observed to have saturated BPLM impacts, while TW-3 was observed to have residual BPLM. The SCM source model prior to this investigation showed residual and saturated BPLM to the west and south of TW-1, and residual BPLM to the east of TW-1, but BPLM was not shown extending north. Therefore, based on the observation of saturated BPLM in TW-1 and residual BPLM in TW-3, , the areal extent of the BPLM (both saturated and residual) was extended to the north. This is in an area that had known BPLM present on three sides, therefore, the occurrence of BPLM at this location fits well into the overall understanding of the distribution of BPLM at the site; and
- East of the Western Parcel, outside of previous soil removals, and deeper than previous ISCO treatment occurred. The 2010 data gap investigation borings in this area identified no changes to the current understanding of impacts in the Western Parcel, but served to confirm the BPLM extent in this area.

3.10.3 Dissolved Phase Constituents

This section describes the dissolved phase constituents in the various aquifers at the Study Area. The discussion below focuses on the results from the January 2011 semiannual sampling event, as reported in the 9th *Semiannual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event (ERM, 2011).*

<u>MGP-related COIs in Alluvium</u>

Alluvium wells show no exceedances of MGP COIs for Type 1 RRS in January 2011, with the exception of cadmium in MW-501S, and TCE in MW-401S (Figure 3-40A) Benzene and naphthalene did not exceed the Type 1 RRS in alluvium ground water in January 2011. The 2009 Revised SCM provides a more detailed discussion of historical groundwater results in the alluvium.

TCE in MW-401S has ranged from 4.1 to 200 µg/l. In January 2011, MW-401S contained 49 µg/l TCE. Most of these results are Type 1 RRS exceedances, but this constituent is unrelated to activities at the former Site. TCE was reported at 49 µg/L at MW-401S in January 2011, above the Type 1 RRS concentration of 5 µg/L for TCE. It is AGLC's position that TCE is not an MGP-COI.

MW-501S has existed since February 2007. There have been no exceedances for any COIs with the exception of 0.0342 mg/L lead (Type 1 RRS 0.015 mg/L) in February 2007 and 0.012 mg/L cadmium (Type 1 RRS 0.005 mg/L) in January 2011. The lead exceedance in February 2007 could have been related to ISCO injection earlier because the higher oxidation state in groundwater can temporarily increase the solubility of metals and mobilize them.

Conclusion: No discernable COI groundwater plume exists in the alluvium aquifer.

MGP-related COIs in Galliard

The groundwater plume in the Galliard above the saprolite appears horizontally stable and remains largely confined to the vicinity of the former MGP operations and Block E. The higher clay content and pinching of the Galliard sand formation provide the most plausible explanation. However, vertical migration remains a concern. The horizontal stability is illustrated by Figures 3-43 and 3-44 provided in the 2009 Revised SCM, which show snapshots of the benzene and naphthalene plumes, respectively, for the period 1998-2008. More recent data remains generally consistent with these snapshots.

During the January 2011 groundwater sampling event, the VOC concentrations that exceeded their Type 1 RRS in ground water were reported from wells MW-12, MW-304, and MW-602 (for benzene), MW-21 and MW-401D (for TCE), and MW-205 and MW-601 (benzene and toluene). As noted above, TCE is not considered an MGP related constituent.

Also during the 2011 sampling event, naphthalene was detected at concentrations exceeding the Type 1 RRS (20 µg/L) in wells MW-12, MW-205, MW-304, MW-601, MW-602, and MW-603. Other SVOCs detected at concentrations exceeding the Type 1 RRS include: phenanthrene in MW-603; acenaphthylene in MW-205, MW-505D, MW-601 and MW-602. The Type 1 RRS were exceeded for benzo(a)anthracene in MW-19, and MW-205; benzo(a)pyrene in MW-19, MW-205; and chrysene in MW-19, and MW-205.

No Galliard Formation wells had a Type 1 RRS exceedance reported for metals in during the January 2011 groundwater monitoring event.

Figure 3-40B shows RRS Type I Exceedances in the Galliard for January 2011. Figure 3-41 shows extent of dissolved phase impacts in the Galliard for January 2011.

During the 2010 data gap investigation, grab groundwater samples were collected. The highest concentrations in the groundwater samples were observed in wells MW-600 and MW-601, which were installed outside of the In Situ Solidification (ISS) area, to the east

and north, in areas where saturated BPLM has been documented during previous investigations, and was also documented during drilling of these wells. Therefore, these elevated concentrations are not inconsistent with the current SCM.

Conclusion: The Galliard formation COI plume is stable in the horizontal direction and remains largely areally confined to the vicinity of the former MGP operations and to the southeast (Figure 3-41). Delineation to the southeast of MW-304 (side gradient) was performed with the installation of MW-602 and the results may be indicative either a separate source from the main plume, or may simply be related to more rapid degradation in the area of MW-206 and MW-207 (see Figure 3-41).

MGP-related COIs in Saprolite

During the 2011 groundwater sampling event, the Type 1 RRS were exceeded in Saprolite well MW-311 for VOC's (benzene) and SVOC's (naphthalene). MW-311 lies adjacent to MW-12, which represents the Galliard aquifer above. MW-12 has originally exhibited high benzene and naphthalene impacts, although these concentrations have generally declined since 2001. MW-214 lies down-gradient and side-gradient of MW-311 and has not exhibited benzene or naphthalene exceedances. Continued gauging, sampling, and analysis for VOCs and SVOCs at MW-214 will help confirm that the impacts at MW-311 are minimal and non-extensive.

Inorganic concentrations were reported above Type 1 RRS at three saprolite well locations in January 2011. Cadmium concentrations were reported at MW-311 in excess of the Type 1 RRS. Nickel concentrations were reported at MW-306SAP and MW-310SAP in excess of the Type 1 RRS. Nearby wells do not show exceedances, indicating that any groundwater impacts in the saprolite are sporadic. Figure 3-40C shows RRS Type I Exceedances in the saprolite for January 2011.

Conclusion: A limited groundwater plume exists, reflecting sporadic exceedances of Type 1 RRS in the saprolite aquifer.

MGP-related COIs in Transition Zone and Bedrock

The bedrock below the saprolite is highly fractured and behaves like a highly anisotropic, porous media. As of January 2011, AGLC had installed 32 wells in the transition zone and the fractured bedrock aquifer. This includes the most recent installation of MW-513BR in October 2010 between the site (e.g. MW-306BR) and the northernmost bedrock well (e.g. MW-318).

The plume appears to migrate in a different (i.e., north-northeast) direction compared to the groundwater potential direction (east-southeast). Groundwater in fractured rock can flow against the regional (or local) gradient as a result of variable heads in discrete permeable zones and the spatial orientation/inclination of the fracture induced conduits. Therefore, fractured bedrock groundwater flow (and hence COI transport), is not necessarily limited to the orientation of the fracture zones. The groundwater model being developed, will be used to test and refine our current understanding of groundwater flow dynamics.

In January 2011, benzene was detected at concentrations exceeding the Type 1 RRS in the following 14 bedrock wells: MW-213, MW-306BR, MW-307BR, MW-308BR, MW-318, MW-321, MW-324, MW-500BR, MW-504BR, MW-509BR, MW-510BR, MW-511BR, MW-512BR, and MW-513BR. The benzene concentrations exceeding the Type 1 RRS in these wells ranged from a low of 11 µg/L at MW-324 to a high of 13,000 µg/L at MW-307BR. Ethylbenzene, toluene and TCE also exceeded Type 1 RRS, but in fewer wells. Benzene is the primary VOC of concern in the bedrock.

Naphthalene was detected at concentrations exceeding its Type 1 RRS in the following 10 wells: MW-213, MW-306BR, MW-307BR, MW-308BR, MW-318, MW-321, MW-500BR, MW-509BR, MW-510BR and MW-511BR. The naphthalene concentration in these wells exceeding the Type 1 RRS ranged from a low of 390 µg/L at MW-306BR to a high of 12,000 µg/L at MW-511BR. A number of other PAHs exceeded the Type 1 RRS, but naphthalene is the primary SVOC of concern in the bedrock.

The only Type 1 RRS exceedance for metals in bedrock groundwater was for zinc in monitoring well MW-307BR during the January 2011 sampling event. Figure 3-40D shows RRS Type I Exceedances in the bedrock and transition zone for January 2011.

Prior to the installation of MW-513BR, the benzene and naphthalene dissolved phase plume was interpreted to extend to the northeast along the primary bedrock fractures and appeared elongated along a northwest-southeast axis. The bedrock groundwater MGP COI plume also extends along the tertiary fracture orientation in the vicinity of the site. However, significantly lower MGP COI concentrations in the newly installed bedrock well MW-513BR suggest that impacts to the north (MW-318 in Block N) may be separate from the impacts in the main area of the Site, as discussed below.

Analytical results from November 2010, (after the October 2010 well installation), indicate a benzene exceedance (42 µg/l) in the new bedrock well MW-513BR. This is not unexpected, given that benzene has consistently been observed in both MW-318 (1,100 µg/l, July 2010), located approximately 400 feet to the north, and in MW-306BR (730 µg/l, July 2010), located approximately 600 feet to the southeast in Block A (in the area of the main site). An important finding is that the MW-513BR benzene concentration is an order of magnitude less than that in either MW-306BR or MW-318. In addition, the naphthalene concentration in MW-513BR (8 µg/l, below the RRS of 20 µg/l) is also an order of magnitude less than the naphthalene concentration in either MW-306BR (280 µg/l) or MW-318 (110 µg/l).

The January 2011 semiannual groundwater monitoring results continue to support the position that the impacts are separate. Specifically, in January 2011, the benzene concentrations moving south to north were 480 µg/l (MW-306BR), 30 µg/l(MW-513BR), and 3,500 µg/l (MW-318). The naphthalene results followed the same pattern, with 390 µg/l(MW-306BR), 4.4 µg/l (MW-513BR), and 1,000 µg/l (MW-318). Therefore, as you move north away from the location of the highest concentrations (MW-306BR) in the northern area of the AGLC groundwater plume, the concentrations of MGP-related constituents decrease (MW-513BR). Then, as you continue to move away in the same direction, the concentrations increase again (MW-318). If the AGLC site were the only source for the constituents observed, concentrations should not decrease and then increase with distance from that source. The observation of this pattern is very commonly accepted as evidence for a new (different) source, which is contributing to the increasing concentrations beyond MW-513BR. Consequently, the existing evidence

(increase of concentration away from the source) strongly suggests that there is a separate source distinct from the AGLC MGP site.

In order to evaluate the question of whether the northern plume in the MW-318 area is associated with a source or sources separate from the MGP site, chemical fingerprint samples were collected during the most recent semiannual monitoring event from MW-307BR, MW-318, MW-510BR and MW-513BR. Access to wells MW-318 and MW-513BR was delayed until February 6th and 7th, due to events at the Civic Center, therefore, results have not yet been received. If the chemical fingerprint results are received and validated by the end of February, the results will be provided in the *11th Semiannual Corrective Action Effectiveness Report: January 2012 Groundwater Monitoring Event*, which is to be submitted by ERM in March 2012. Alternatively, the results will be submitted under separate cover.

Figure 3-42 shows the revised extent of the dissolved phase impacts (benzene and naphthalene) in the bedrock based on the January 2011 semiannual monitoring event. This figure depicts the interpretation that a separate groundwater plume is associated with the area around MW-318. A detailed discussion of the exceedances in bedrock for the January 2011 sampling event is provided in the March 2011 SACAER (ERM, 2011).

Conclusion: The benzene and naphthalene plume in the bedrock to the north may be related to a difference source than the plume to the south which is centered on the areas of former MGP operations. (Figure 3-42).

3.11 GROUNDWATER PLUME MIGRATION HISTORY

The following section describes the history of plume migration at the Study Area.

3.11.1 Historic Movement and Extent

Benzene and naphthalene groundwater plumes are not present in the alluvium.

The extent of benzene and naphthalene over time was evaluated in the 2009 Revised SCM, and presented in Figures 3-43 (benzene) and 3-44 (naphthalene) for the period 1998 through 2008. Figures 3-43 The overall plume extent in the Galliard has remained consistent since 2008.

The extent of benzene and naphthalene in the fractured bedrock was also evaluated in the 2009 Revised SCM, and presented Figures 3-45 (benzene) and 3-46 (naphthalene) for the period 1999 through 2009 in that report. The overall plume extent in the bedrock has remained consistent since 2009, except that, based on the new data from MW-513BR, it appears that the northern portion of the plume in the vicinity of MW-318 is separate from the groundwater plume in the area of the former MGP site (see discussion in Section 3-10-3.

3.12 POTENTIAL EXPOSURE PATHWAYS

The following exposure pathways were addressed:

- Surface Soil and Sediments Ingestion and Contact,
- Groundwater Ingestion and Contact, and

- Vapor Inhalation.

AGLC has remediated exposure pathways associated with soil and sediments. COI-impacted groundwater is not accessible for direct contact, and the impacted aquifers in the Study Area do not serve as sources of water supply. Due to high groundwater concentrations of benzene, and to a lesser extent naphthalene, vapor intrusion was considered a potential exposure pathway. Therefore, the only viable potential exposure pathway was vapor inhalation. A vapor intrusion evaluation including soil vapor sampling was conducted in October 2010. The data collected and the evaluation of this data per EPA Vapor Intrusion Guidelines resulted in the conclusion that there is a potential for a vapor intrusion which must be further evaluated by collecting indoor air samples. AGLC is in the process of preparing an indoor air sampling work plan for EPD review. The vapor intrusion evaluation results are discussed above in Section 2.2.4.

3.13 OPTIMIZATION OF MONITORING WELL NETWORK

The 2009 Revised SCM provided a detailed review of the well network and monitoring program, including recommendations for changes, some of which were approved by EPD and implemented, including the abandonment of select wells, reduction of monitoring in others, and the addition of geochemical analysis in others to characterize biologic activity. For a number of wells, it was proposed in the 2009 Revised SCM that they be reviewed after two years to determine if abandonment is warranted. Since it is now over 2 years from the date that the 2009 Revised SCM was submitted, the following sections discuss current recommended modifications to the groundwater monitoring program for each aquifer. Table 3-8 summarizes the recommendations.

3.13.4 Alluvium Aquifer

Sampling and analysis (COIs and MNA) in this aquifer provides information regarding the possibility of impact to the shallow aquifer near the Third Level Canal. MW-408S is located north and west of the Site, approximately 1,200 feet northwest of the Northern Parcel. This well has never had exceedances of the Type 1 RRS for VOCs or SVOCs, the only exceedances have been for metals. The last exceedance of any type was an exceedance for arsenic (0.22 mg/L; Type 1 RRS: 0.05 mg/L) in January 2010. AGLC recommends discontinuing gauging and sampling this well, and abandoning the well. AGLC recommends retaining all other alluvium wells in the current program.

3.13.5 Galliard Aquifer

The Galliard benzene and naphthalene plumes appears horizontally stable and areally limited to areas of former MGP operations and areas immediately downgradient (e.g. Blocks E and H). Some wells surrounding this area have histories of low detections and benefit the monitoring program by delineating the plumes' extents. Not all of these wells are necessary for this purpose, however. EPD approved the recommendation in the 2009 Revised SCM to abandon MW-18, MW-201, MW-210, MW-305, and MW-407D. These wells are redundant because adjacent wells provide similar data or because the data are inconclusive due to well location or well construction. These wells, with the exception of MW-305 which was found to be previously destroyed, were decommissioned in October 2010.

Four Galliard wells were installed in October 2010 and added to the semiannual monitoring program. MW-600 and MW-601, on Eighth Street and Walton Way,

respectively, were added to characterize the central, higher concentration area of the Galliard groundwater plume. MW-602 was added as a downgradient monitoring well to aid in the delineation of the plume to the southeast. MW-603 was installed in Block A, to monitor impacts downgradient of the Type 5 area associated with the Georgia Power electrical vault.

MW-21 is not proximate to the Site, located approximately 1,050 feet east of the Northern Parcel. The only constituent that has been consistently detected above the RRS in MW-21 is TCE, which is not an MGP COI. There was a one-time exceedance of the Type 1 RRS for chromium (0.2 mg/L; Type 1 RRS 0.1 mg/L) in January 2010. Benzene has not been detected above the reporting limit in MW-21 since July 2003, with the exception of recent detections qualified by the laboratory as estimates. Similarly, recent detections of naphthalene are estimates by the laboratory and qualified as such. All other MGP-COI have been either non-detect, or at very low concentrations; all below the RRS. Given the well's distance from the Site, and its limited detections of MGP-related COI, AGLC recommends that MW-21 be abandoned.

Sampling and gauging was discontinued in MW-23 in 2010 based on the recommendations of the 2009 Revised SCM. The EPD agreed to consider abandonment after two years. The well is sufficiently north of the Galliard groundwater plume (up-gradient and side-gradient). AGLC recommends that MW-23 be abandoned.

MW-211 is located in Block C, 400 feet west of the Third Level Canal. It is side-gradient of the Galliard groundwater plume, with other wells (MW-19, MW-402D) between it and the plume. Based on the 2009 Revised SCM, EPD agreed that the abandonment of this well could be considered after two years. The well has not been sampled since July 2009, due to continued difficulties obtaining access with the property owner. Given the access issues and the well's side-gradient location, AGLC recommends that MW-211 be abandoned.

MW-402D is located west of the Third Level Canal, across from the Northern Parcel. There have been no Type 1 RRS exceedances in this well since February 2005 (an exceedance for beryllium). Based on the 2009 Revised SCM, EPD agreed that the abandonment of MW-402D could be considered after two years. However, AGLC recommends continued monitoring of MW-402D to provide control on the west side of the groundwater plume.

MW-408DR is located over 1,300 feet north-northeast of the Northern Parcel and is not proximate to the Site. There were no exceedances of the Type 1 RRSs in 2010 or 2011, with the last exceedance in July 2009 for phenanthrene (17 µg/l; Type I RRS 10 µg/l). Because of the lack of exceedances, and distance from the Site, AGLC recommends that MW-408DR be abandoned.

3.13.6 Saprolite Aquifer and Transition Zone

MW-11 is located in the Southern Parcel. Based on the 2009 Revised SCM, EPD agreed that the continued monitoring of MW-11 could be re-evaluated after two years. There have been no exceedances of the Type 1 RRS in 2010 and 2011. The last Type 1 RRS exceedance was for benzo(a)anthracene in February 2007 (0.23 µg/l; Type 1 RRS 0.1 µg/l). AGLC recommends abandoning MW-11, because continued monitoring is not warranted.

MW-214 is located in Block G, one block east of the CME Church. Based on the 2009 Revised SCM, EPD agreed that the continued monitoring of MW-214 could be re-evaluated after two years. AGLC recommends continued monitoring of MW-214, due the orientation of the Galliard plume immediately to the west of this well.

MW-306SAP is located north of the Car Wash in Block A. Based on the 2009 Revised SCM, EPD agreed that the continued monitoring of MW-306SAP could be re-evaluated after two years. With the exception of exceedances for nickel (0.38 mg/L in January 2011; Type 1 RRS 0.1 mg/L), there have been no exceedances of Type 1 RRS since January 2004. AGLC recommends discontinuing monitoring in MW-306SAP, but continue gauging this well for water level contouring in the saprolite.

MW-307SAP is located in Block E, northeast of the Northern Parcel. Based on the 2009 Revised SCM, EPD agreed that the continued monitoring of MW-306SAP could be re-evaluated after two years. In January 2010, there were exceedances of the Type 1 RRS for a number of PAHs. AGLC recommends retaining MW-307SAP in the monitoring program because it is useful for saprolite water level control and monitoring of SVOCs.

MW-309SAP is located in Block T southeast of the Site. Sampling and gauging of this well has been discontinued per the 2009 Revised SCM. EPD agreed that MW-309SAP could be abandoned after two years, subject to consultation with EPD. There are no issues in the saprolite at the southeastern extent of the groundwater plume, therefore, AGLC recommends that MW-309SAP be abandoned.

MW-312 is located approximately 1,100 feet east of the Northern Parcel. Sampling and gauging of this well has been discontinued, per the 2009 Revised SCM. EPD agreed that MW-312 could be abandoned after two years, subject to consultation with EPD. Because the well is not proximate to the Site, AGLC recommends that MW-312SAP be abandoned.

MW-314 is located approximately 1,100 feet east of the Northern Parcel. Sampling and gauging of this well has been discontinued, per 2009 Revised SCM. EPD agreed that MW-314 could be abandoned after two years, subject to consultation with EPD. Because the well is not proximate to the Site, AGLC recommends that MW-314 be abandoned.

MW-317 is located in Block N, north of the Site in a well cluster with MW-318. Sampling and gauging of this well has been discontinued, per 2009 Revised SCM. EPD agreed that MW-317 could be abandoned after two years, subject to consultation with EPD. However, given its location, MW-317 may be useful in evaluating other potential sources north of the main MGP Site. AGLC recommends that MW-317 not be abandoned at this time.

MW-401SAP is located in Block C, east of the Western Portion. Based on the 2009 Revised SCM, EPD agreed that the continued monitoring of MW-401SAP could be re-evaluated after two years. AGLC recommends that MW-401SAP be retained in the monitoring program, because the well is useful for saprolite water level data, and to confirm a lack of groundwater impacts in the saprolite southwest of the Galliard groundwater plume.

There are four Transition Zone wells (MW-306TZ, MW-307TZ, MW-309TZ and MW-310TZ). As indicated in the 2009 Revised SCM, these wells may reflect the groundwater conditions and groundwater quality of the saprolite (or potentially the

bedrock). Monitoring and comparison to their corresponding saprolite or bedrock wells may characterize them as redundant. MW-306TZ and MW-307TZ were retained in the sampling program in 2009, and MW-309TZ and MW-310TZ were retained for gauging only. Based on the 2009 Revised SCM, EPD agreed that the continued need for MW-307TZ, MW-309TZ and MW-310TZ could be re-evaluated after two years.

MW-307TZ is likely screened in the saprolite, and the corresponding saprolite well MW-307SAP is providing similar data. For this reason, AGLC recommends that MW-307TZ be abandoned.

MW-309TZ has water levels that appear consistent with the associated bedrock well MW-309BR, which is gauged and sampled. There is limited benefit to continuing to gauge this well, therefore, AGLC recommends that MW-309TZ be abandoned.

MW-310TZ also has water levels that appear consistent with the associated bedrock well MW-310BR, which is gauged and sampled. There is limited benefit to continuing to gauge this well, therefore, AGLC recommends that MW-310TZ be abandoned.

3.13.7 Bedrock Aquifer

The current bedrock monitoring network is generally well suited to the plume's configuration. The nine additional bedrock monitoring wells installed in September 2008 remain in the monitoring network. Of these wells, the 2009 Revised SCM suggested that, due to their proximity to other bedrock wells, MW-504BR and MW-510BR may be redundant. EPD agreed that the continued monitoring of MW-504BR and MW-510BR could be re-evaluated after two years.

MW-504B is located on the north side of the Northern Parcel, east of MW-503BR. It is not of associated with the primary or secondary bedrock fracture set identified in the 2008 bedrock investigation. However, this well is useful for plume control, and AGLC recommends retaining MW-504BR in the monitoring program.

MW-510BR is located on the east side of the Northern Parcel, north of MW-509BR. It is not associated with the primary or secondary bedrock fracture set identified in the 2008 bedrock investigation. However, this well is useful for plume control, and AGLC recommends retaining MW-510BR in the monitoring program.

Prior to the installation of the new bedrock well MW-513BR, there was a large distance (between MW-318 and the main body of the bedrock plume. The January 2011 results for well MW-318 (benzene at 3,500 µg/l; and naphthalene at 1,000 µg/l) compared to the results at MW-513BR (benzene at 30 ug/L; and naphthalene at 4.4 µg/l) suggests that the plume at MW-318 is separate from the main MGP plume, or at a minimum includes contributions from other sources. This is further discussed in Section 3.10.3.

3.14 STATUS OF PREVIOUSLY IDENTIFIED DATA GAPS

The following subsections discuss previously identified data gaps pertaining to the following, and how these have or are being resolved:

- Better Define BPLM in Galliard in Select Areas,
- Delineation and Characterization of Galliard Plume

- Additional Monitoring of Bedrock Groundwater in North
- Evaluation of vapor intrusion concern.

3.14.1 Better Define BPLM in Galliard in Select Areas

The 3D modeling of the BPLM observations in the horizontal and vertical planes, as shown in the cross sections of Figures 3-14 and 3-15 (in this SCM Addendum) and 3-16 (in the 2009 Revised SCM), and the extent map in Figure 3-37, has now , adequately delineated the extent of BPLM in the Galliard. Additional borings were advanced in 2010 as part of the data gap investigation to better define select areas, such as the corner of Walton Way and 8th Street (define areal extent); between SSI borings 1 and 2 on the south side of Walton Way and SSI Borings 8, 9 and 10 on the north side of Walton Way (assess connection of saturated BPLM) and in select areas of Block E (assess if saturated BPLM areas are connected or isolated). This data was documented in the *Data Gap and Well Installation/Decommissioning Report (ECM, 2011b)* This data was used to to refine the source model.

The extent of BPLM in the Galliard has been adequately defined, addressing this data gap.

3.14.2 Delineation and Characterization of Galliard Plume

The concentrations of the Galliard plume to the southeast of MW-304 needed to be delineated to confirm that the plume is stable in that direction. A new monitoring well (MW-602) was installed in October 2010 to obtain this confirmation. Previously, only three wells defined the main body of the Galliard plume, and they were near the perimeter of the plume. Two additional wells (MW-600 and MW-601) were installed in October 2010 to better monitor the plume interior. One additional well (MW-603) was installed downgradient of the Type V area established at the Georgia Power electric vault on the corner of Fenwick and Ninth Street. This well was installed to monitor conditions downgradient of the Type V area.

The Galliard plume is largely characterized with the additional well locations although MW-602 has had exceedances in 2011. Ongoing semiannual monitoring would determine any future data needs.

3.14.3 Additional Monitoring of Bedrock Groundwater in North

The northernmost bedrock well, MW-318, is a significant distance from the main body of the bedrock plume (approximately 875 feet from MW-306BR to the south-southwest). A new bedrock well (MW-513BR) was installed in October 2010 between MW-306BR and MW-318 to allow AGLC to better monitor the northern extent of the bedrock plume configuration as groundwater treatment continues, and to provide additional data for hydraulic control.

The current groundwater monitoring network, with the additional bedrock well, is adequate for monitoring bedrock impacts.

3.14.4 Evaluation of Vapor Intrusion Concern

Due to high benzene groundwater concentrations and, to a lesser extent, naphthalene, the EPD indicated in Comment 46 of the August 3, 2009 correspondence that a vapor intrusion evaluation must be conducted for all buildings located above the groundwater contamination plume. A work plan was submitted to EPD for review and approval and soil vapor sampling was conducted to evaluate the potential for vapor intrusion in select buildings located above the groundwater contamination plume. The data were evaluated per EPA Vapor Intrusion Guidance and in accordance with specific EPD comments. The site-specific EI Determination yielded risk levels exceeding 10^{-6} for carcinogens. Therefore, indoor air sampling was recommended at all five buildings as the next step in the VI evaluation process. AGLC is in the process of preparing a work plan for submittal to EPD.

Vapor intrusion is continuing to be evaluated with an additional indoor air sampling investigation.

4 CONCLUSIONS

The development of this SCM has yielded the following conclusions:

1. A residual and saturated BPLM/TLM/OLM source material layer in the Galliard sands constitutes a continuing source to Galliard and Bedrock groundwater contamination. The BPLM source model was updated with data from the 2010 data gap investigation and Galliard Formation and Bedrock well installations. Refinements were made to the BPLM extent along a small section north of the CME Church building (TW-1); an adjustment to a known saturated zone along Walton Way near the former Car Wash (MW-600); and a small area near the GP Vault (MW-603). In general, these areas were in portions of the study area with known residual or saturated BPLM impacts and thus consistent with the 2009 Revised SCM.
2. An important finding from the 2010 well installations is that the MW-513BR benzene concentration is an order of magnitude less than that in either MW-306BR or MW-318. In addition, the naphthalene concentration in MW-513BR is also an order of magnitude less than the naphthalene concentration in either MW-306BR or MW-318. Sample results from January 2011 for benzene and naphthalene confirm these findings. This supports the position that the groundwater impacts in the MW-318 area are related to a separate source, or include contributions from a source separate from the impacts in the main area of the groundwater plume. The nature of a separate source, if present, is being evaluated through chemical fingerprinting.
3. In terms of potential exposure pathways for vapor intrusion, a vapor intrusion evaluation was performed by collecting soil vapor data surrounding site buildings. The data were evaluated per EPA Vapor Intrusion Guidance and in accordance with specific EPD comments. The site-specific EI Determination yielded risk levels exceeding 10^{-6} for carcinogens. Therefore, indoor air sampling was recommended at all five buildings as the next step in the VI evaluation process. AGLC is in the process of preparing a work plan for submittal to EPD.

5 RECOMMENDATIONS

The following subsections explain the recommendations resulting from this SCM Addendum, as well as reflecting the status of work associated with the Site-wide Approach (consisting of Site Conceptual Model development/refinement, and fate and transport modeling as the basis for preparation of a feasibility study to develop a comprehensive and holistic remediation strategy. The planned additional VI evaluation, consisting of indoor air sampling, while not directly impacting the ultimate remediation strategy, is also included as a recommendation, because evaluating the VI pathway by conducting a soil vapor investigation was one of the recommendations of the 2009 Revised SCM. The project schedule details provided in the sections below is based on the project schedule submitted by AGLC to EPD on January 19, 2012.

5.1 PERFORM INDOOR AIR SAMPLING TO COMPLETE VAPOR INTRUSION EVALUATION

Pursuant to the recommendations of the January 12, 2012 RVIER, prepare a work plan to conduct indoor air sampling in the five buildings that were evaluated with earlier soil vapor sampling. The field work will be implemented within 30 days of EPD approval of the work plan. Two rounds of indoor air sampling are planned to address seasonal variation, based on the EPA Guidance. Based on the project schedule submitted, the work plan will be submitted by Friday, February 24, 2012; assuming EPD approval by March 26, 2012 and the ability to obtain access to the buildings, the first indoor air sampling round would begin by April 26, 2012. The second indoor air sampling round would be completed in early November 2012, and a report covering both rounds of sampling submitted by December 28, 2012.

5.2 PERFORM FATE AND TRANSPORT MODELING

Use the 2009 Revised SCM and the SCM Addendum in support of the development of a fate and transport model. The presence and extent of BPLM presented in this SCM Addendum conservatively depicts BPLM within the ISCO treatment areas based on what was observed from boring records prior to ISCO treatment. During the course of developing the groundwater model, the model runs will evaluate these initial source inputs to the model and determine if the source areas, as illustrated in the SCM Addendum, are reasonable. The EPD should be aware that modeling work has been ongoing while the SCM Addendum was being completed. Based on the project schedule submitted, AGLC will submit the fate and transport model by June 1, 2012. Assuming the receipt of any EPD comments by August 1, 2012, AGLC will provide a revised fate and transport model by September 10, 2012. AGLC then anticipates EPD approval after this first round of comments is addressed..

5.3 MODIFY GROUNDWATER MONITORING SYSTEM

Based on the discussion in Section 3-13 and as summarized on Table 3-8, AGLC recommends that following wells be abandoned: MW-408S, MW-21, MW-23, MW-211, MW-408DR, MW-11, MW-307TZ, MW-309SAP, MW-309TZ, MW-310TZ, MW-312TZ

and MW-401SAP. It is also recommended that the program for MW-306SAP be reduced from sampling and gauging to gauging only.

5.4 PREPARE A FEASIBILITY STUDY

Prepare and submit a feasibility study to develop a comprehensive, holistic remediation strategy. Based on the project schedule submitted, work on the feasibility study would begin in parallel with the completion of the fate and transport model. Specifically, work on the feasibility study would begin with the receipt of EPD comments on the fate and transport model report (on or about August 1, 2012). AGLC will provide a feasibility study for EPD review on Monday, November 5, 2012. Assuming the receipt of EPD comments by January 4, 2013 (approximately 60 days), AGLC would submit a revised feasibility study by February 18, 2012 (approximately 45 days). Upon approval of the feasibility study by EPD, the implementation of feasibility study recommendations would begin.

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AGLC, Letter to Ms. Amanda Howell, Georgia Department of Natural Resources. May 20, 2010. *Re: 1) Data-Gap Investigation and Monitoring Well Installation/Decommissioning Work Plan; 2) Vapor Intrusion Evaluation Work Plan, AGLC Former MGP Site Augusta, Georgia, HSI #10132.* (AGLC, 2010b)

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ECM, *Revised Vapor Intrusion Evaluation Report*, Former Manufactured Gas Plant Site, Augusta, Georgia, May 13, 2011. (ECM, 2011c)

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ECM, *Revised Vapor Intrusion Evaluation Report*, Former Manufactured Gas Plant Site, Augusta, Georgia, January 12, 2012. (ECM, 2012)

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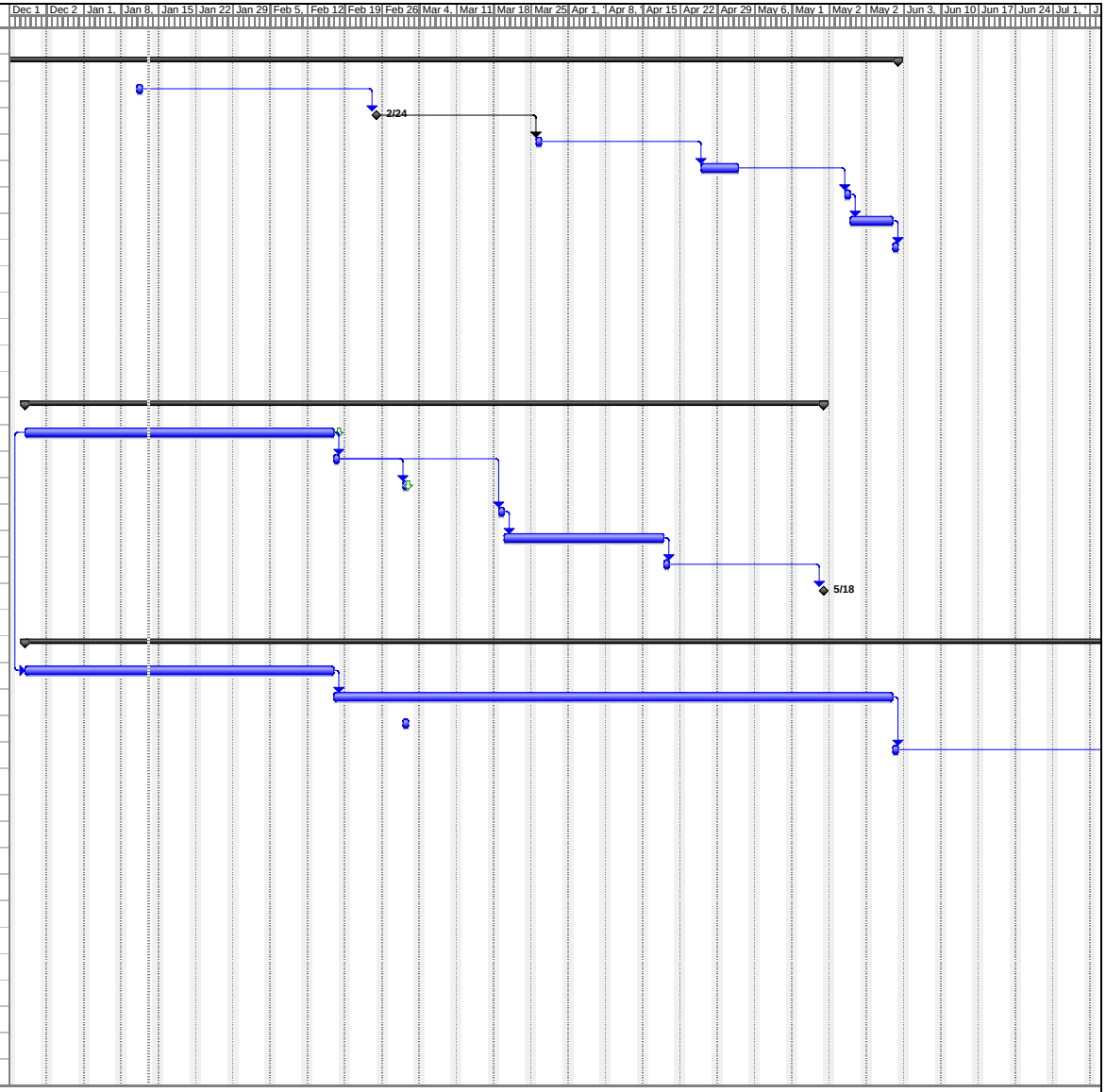
FIGURES

Figure 1-2 Project Schedule
Site Conceptual Model Addendum - Augusta Former MGP Site

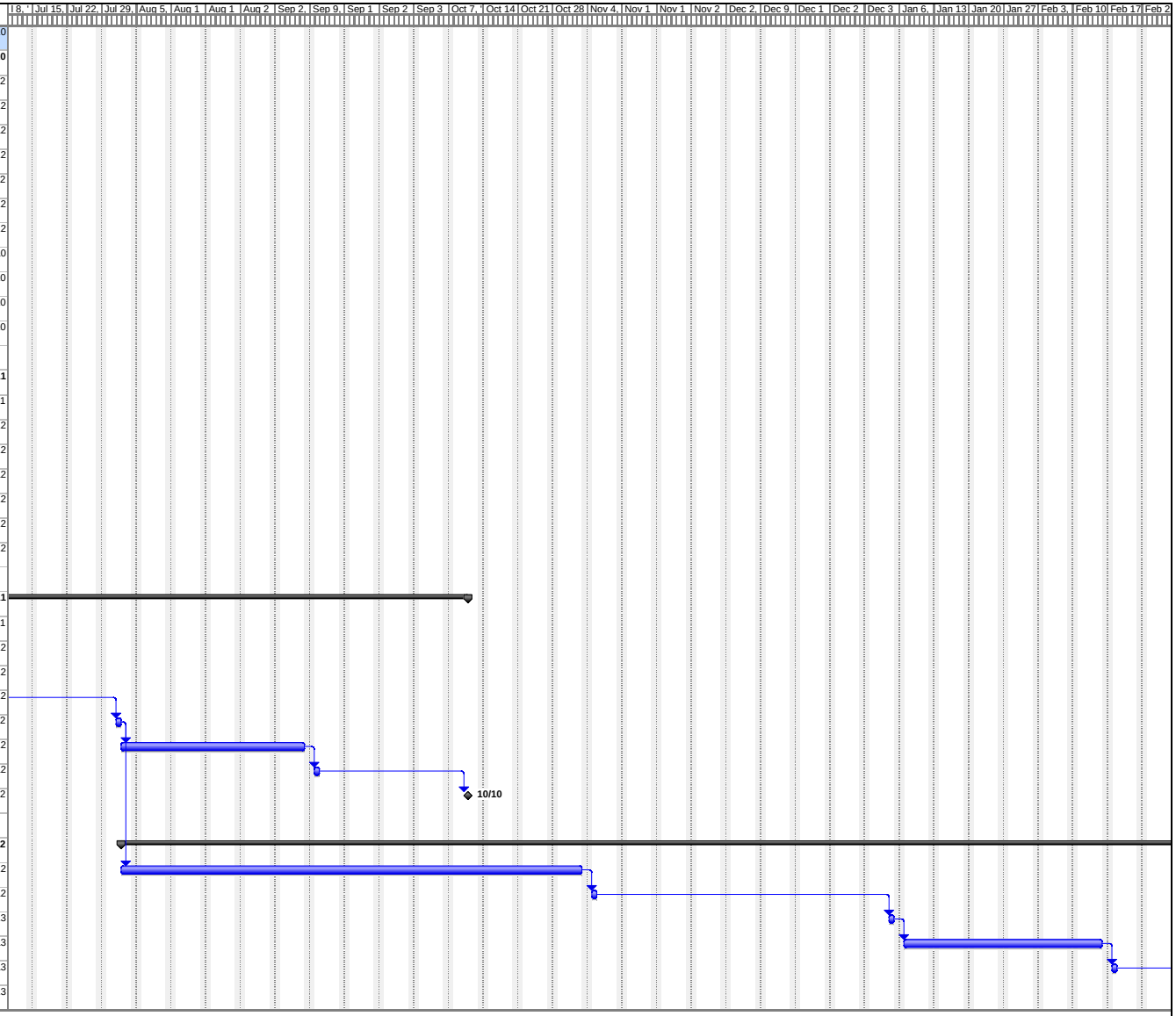
ID	Task Name	Duration	Start	Finish	Predecessors
1		1 day?	Thu 4/1/10	Thu 4/1/10	
2	**Vapor Intrusion Evaluation**	**415 days**	**Mon 11/1/10**	**Fri 6/1/12**	
3	Submit Revised Vapor Intrusion Evaluation Report to EPD	1 day	Wed 1/11/12	Wed 1/11/12	
4	Submit Indoor Air Sampling Work Plan to EPD	32 days	Thu 1/12/12	Fri 2/24/12	3
5	Receive EPD Approval of Final Work Plan	1 day	Mon 3/26/12	Mon 3/26/12	4FS+20 days
6	Begin Indoor Air(IA) Investigation Fieldwork - Round 1	5 days	Thu 4/26/12	Wed 5/2/12	5FS+22 days
7	Receive IA Data - Round 1	1 day	Wed 5/23/12	Wed 5/23/12	6FS+14 days
8	Prepare Summary Table for Round 1 Data	6 days	Thu 5/24/12	Thu 5/31/12	7
9	Submit Round 1 Summary Table to EPD	1 day	Fri 6/1/12	Fri 6/1/12	8
10	Conduct Round 2 IA Sampling	4 days	Mon 11/1/10	Thu 11/4/10	
11	Receive IA Data - Round 2	1 day	Thu 11/25/10	Thu 11/25/10	10FS+14 days
12	Report Preparation	21 days	Fri 11/26/10	Fri 12/24/10	11
13	Submit VI Evaluation Report to EPD	1 day	Tue 12/28/10	Tue 12/28/10	12FS+1 day
14					
15	**SCM Addendum**	**108 days**	**Wed 12/21/11**	**Fri 5/18/12**	
16	Prepare SCM Addendum incorporating Data Gap and Well Installati	42 days	Wed 12/21/11	Thu 2/16/12	
17	Submit SCM Addendum to EPD	1 day	Fri 2/17/12	Fri 2/17/12	16
18	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12	Thu 3/1/12	17FS+8 days
19	Receive EPD Comments to SCM Addendum	1 day	Mon 3/19/12	Mon 3/19/12	17FS+20 days
20	Revise SCM Addendum based on EPD Comments	22 days	Tue 3/20/12	Wed 4/18/12	19
21	Submit Revised SCM Addendum to EPD	1 day	Thu 4/19/12	Thu 4/19/12	20
22	EPD Approves Revised SCM Addendum	0 days	Fri 5/18/12	Fri 5/18/12	21FS+21 days
23					
24	**Groundwater Model**	**211 days**	**Wed 12/21/11**	**Wed 10/10/12**	
25	Prepare / Calibrate Groundwater Models	42 days	Wed 12/21/11	Thu 2/16/12	16SS
26	Prepare GW Model Report	75 days	Fri 2/17/12	Thu 5/31/12	25
27	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12	Thu 3/1/12	
28	Submit GW Model Report to EPD	1 day	Fri 6/1/12	Fri 6/1/12	26
29	Receive EPD Comments to GW Model Report	1 day	Wed 8/1/12	Wed 8/1/12	28FS+42 days
30	Revise GW Model Report based on EPD Comments	27 days	Thu 8/2/12	Fri 9/7/12	29
31	Submit Revised GW Model Report to EPD	1 day	Mon 9/10/12	Mon 9/10/12	30
32	EPD Approves Revised GW Model	0 days	Wed 10/10/12	Wed 10/10/12	31FS+22 days
33					
34	**Feasibility Study**	**186 days**	**Thu 8/2/12**	**Thu 4/18/13**	
35	Prepare Feasibility Study (FS)	67 days	Thu 8/2/12	Fri 11/2/12	29
36	Submit FFS to EPD	1 day	Mon 11/5/12	Mon 11/5/12	35
37	Receive EPD Comments to FS	1 day	Fri 1/4/13	Fri 1/4/13	36FS+43 days
38	Revise FS based on EPD Comments	30 days	Mon 1/7/13	Fri 2/15/13	37
39	Submit Revised FS to EPD	1 day	Mon 2/18/13	Mon 2/18/13	38
40	EPD Approves Revised FS	0 days	Thu 4/18/13	Thu 4/18/13	39FS+43 days



Project: Augusta 2011-2012 long term
Date: Fri 1/13/12

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

ID	Task Name	Duration	Start
1		1 day?	Thu 4/1/10
2	**Vapor Intrusion Evaluation**	**415 days**	**Mon 11/1/10**
3	Submit Revised Vapor Intrusion Evaluation Report to EPD	1 day	Wed 1/11/12
4	Submit Indoor Air Sampling Work Plan to EPD	32 days	Thu 1/12/12
5	Receive EPD Approval of Final Work Plan	1 day	Mon 3/26/12
6	Begin Indoor Air(IA) Investigation Fieldwork - Round 1	5 days	Thu 4/26/12
7	Receive IA Data - Round 1	1 day	Wed 5/23/12
8	Prepare Summary Table for Round 1 Data	6 days	Thu 5/24/12
9	Submit Round 1 Summary Table to EPD	1 day	Fri 6/1/12
10	Conduct Round 2 IA Sampling	4 days	Mon 11/1/10
11	Receive IA Data - Round 2	1 day	Thu 11/25/10
12	Report Preparation	21 days	Fri 11/26/10
13	Submit VI Evaluation Report to EPD	1 day	Tue 12/28/10
14			
15	**SCM Addendum**	**108 days**	**Wed 12/21/11**
16	Prepare SCM Addendum incorporating Data Gap and Well Installati	42 days	Wed 12/21/11
17	Submit SCM Addendum to EPD	1 day	Fri 2/17/12
18	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12
19	Receive EPD Comments to SCM Addendum	1 day	Mon 3/19/12
20	Revise SCM Addendum based on EPD Comments	22 days	Tue 3/20/12
21	Submit Revised SCM Addendum to EPD	1 day	Thu 4/19/12
22	EPD Approves Revised SCM Addendum	0 days	Fri 5/18/12
23			
24	**Groundwater Model**	**211 days**	**Wed 12/21/11**
25	Prepare / Calibrate Groundwater Models	42 days	Wed 12/21/11
26	Prepare GW Model Report	75 days	Fri 2/17/12
27	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12
28	Submit GW Model Report to EPD	1 day	Fri 6/1/12
29	Receive EPD Comments to GW Model Report	1 day	Wed 8/1/12
30	Revise GW Model Report based on EPD Comments	27 days	Thu 8/2/12
31	Submit Revised GW Model Report to EPD	1 day	Mon 9/10/12
32	EPD Approves Revised GW Model	0 days	Wed 10/10/12
33			
34	**Feasibility Study**	**186 days**	**Thu 8/2/12**
35	Prepare Feasibility Study (FS)	67 days	Thu 8/2/12
36	Submit FFS to EPD	1 day	Mon 11/5/12
37	Receive EPD Comments to FS	1 day	Fri 1/4/13
38	Revise FS based on EPD Comments	30 days	Mon 1/7/13
39	Submit Revised FS to EPD	1 day	Mon 2/18/13
40	EPD Approves Revised FS	0 days	Thu 4/18/13



Project: Augusta 2011-2012 long term
Date: Fri 1/13/12

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

ID	Task Name	Duration	Start
1		1 day?	Thu 4/1/10
2	**Vapor Intrusion Evaluation**	**415 days**	**Mon 11/1/10**
3	Submit Revised Vapor Intrusion Evaluation Report to EPD	1 day	Wed 1/11/12
4	Submit Indoor Air Sampling Work Plan to EPD	32 days	Thu 1/12/12
5	Receive EPD Approval of Final Work Plan	1 day	Mon 3/26/12
6	Begin Indoor Air(IA) Investigation Fieldwork - Round 1	5 days	Thu 4/26/12
7	Receive IA Data - Round 1	1 day	Wed 5/23/12
8	Prepare Summary Table for Round 1 Data	6 days	Thu 5/24/12
9	Submit Round 1 Summary Table to EPD	1 day	Fri 6/1/12
10	Conduct Round 2 IA Sampling	4 days	Mon 11/1/10
11	Receive IA Data - Round 2	1 day	Thu 11/25/10
12	Report Preparation	21 days	Fri 11/26/10
13	Submit VI Evaluation Report to EPD	1 day	Tue 12/28/10
14			
15	**SCM Addendum**	**108 days**	**Wed 12/21/11**
16	Prepare SCM Addendum incorporating Data Gap and Well Installati	42 days	Wed 12/21/11
17	Submit SCM Addendum to EPD	1 day	Fri 2/17/12
18	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12
19	Receive EPD Comments to SCM Addendum	1 day	Mon 3/19/12
20	Revise SCM Addendum based on EPD Comments	22 days	Tue 3/20/12
21	Submit Revised SCM Addendum to EPD	1 day	Thu 4/19/12
22	EPD Approves Revised SCM Addendum	0 days	Fri 5/18/12
23			
24	**Groundwater Model**	**211 days**	**Wed 12/21/11**
25	Prepare / Calibrate Groundwater Models	42 days	Wed 12/21/11
26	Prepare GW Model Report	75 days	Fri 2/17/12
27	Meeting with EPD - discuss SCM / GW Model	1 day	Thu 3/1/12
28	Submit GW Model Report to EPD	1 day	Fri 6/1/12
29	Receive EPD Comments to GW Model Report	1 day	Wed 8/1/12
30	Revise GW Model Report based on EPD Comments	27 days	Thu 8/2/12
31	Submit Revised GW Model Report to EPD	1 day	Mon 9/10/12
32	EPD Approves Revised GW Model	0 days	Wed 10/10/12
33			
34	**Feasibility Study**	**186 days**	**Thu 8/2/12**
35	Prepare Feasibility Study (FS)	67 days	Thu 8/2/12
36	Submit FFS to EPD	1 day	Mon 11/5/12
37	Receive EPD Comments to FS	1 day	Fri 1/4/13
38	Revise FS based on EPD Comments	30 days	Mon 1/7/13
39	Submit Revised FS to EPD	1 day	Mon 2/18/13
40	EPD Approves Revised FS	0 days	Thu 4/18/13

Project: Augusta 2011-2012 long term
Date: Fri 1/13/12

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

1

Schedule may change based on the timing of EPD review, changes to scope and project assumptions, or other factors outside of AGLR's control.

2 Vapor Intrusion Evaluation

Schedule consistent with January 12, 2011 letter and report submittal.
Schedule assumes EPD approval of work plan within 30 days of receipt.
Schedule assumes 2 rounds of IA sampling to address seasonal variation.

15 SCM Addendum

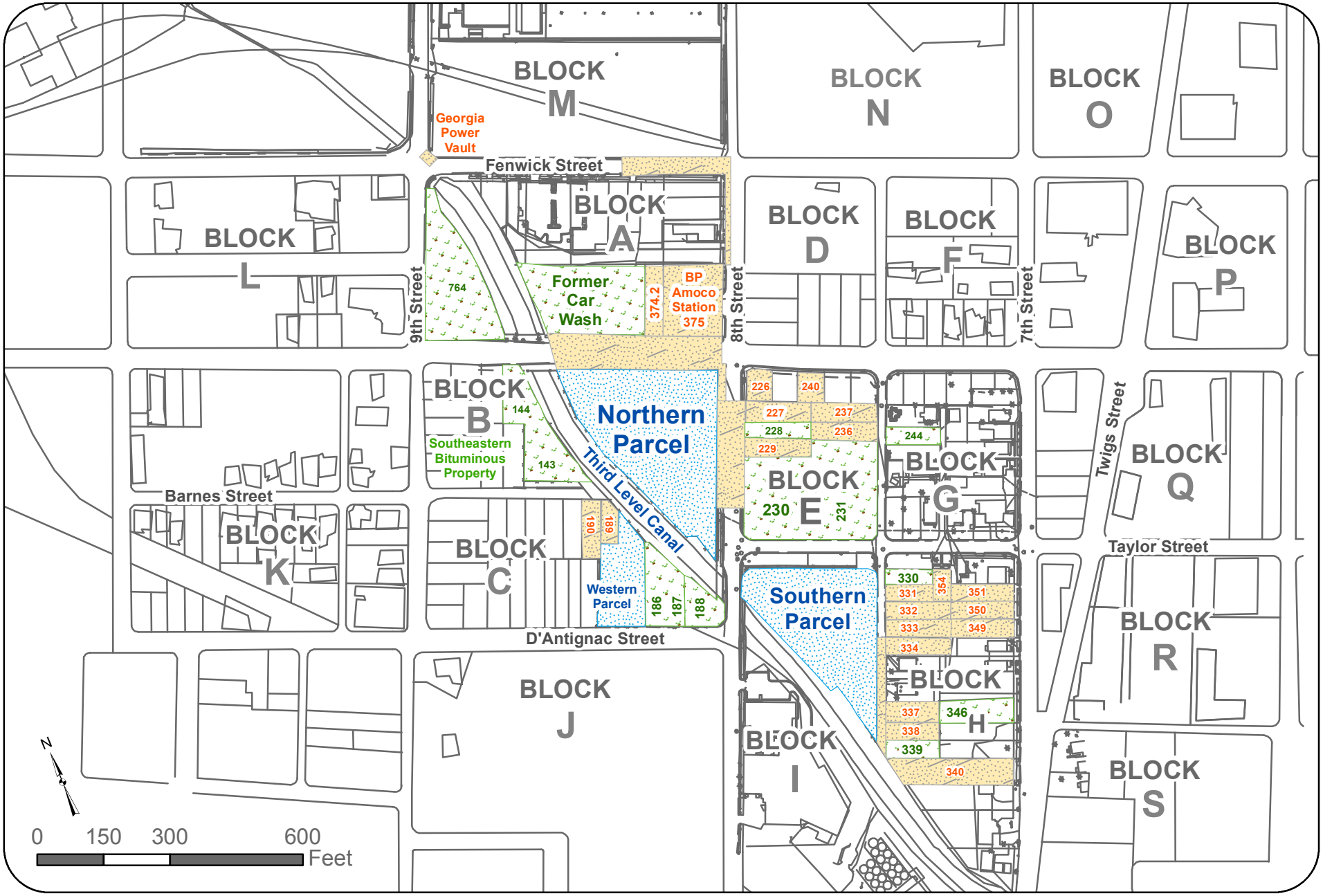
Submittal of SCM Addendum on February 17, 2011 is consistent with December 21, 2011 response to comments.
Schedule assumes EPD provides comments within 30 days of receipt.
Schedule assumes EPD would approve SCM Addendum after first round of comments.

24 Groundwater Model

Groundwater modeling currently in process. Schedule assumes groundwater model report preparation would begin with submittal of the SCM Addendum.
Schedule assumes EPD would provide comments to the GW model report within 60 days of receipt.
Schedule assumes EPD approval of the GW model report after one round of comments are addressed.

34 Feasibility Study

Schedule assumes FS preparation overlaps addressing EPD comments on the GW Model Report. FS preparation begins with receipt of EPD comments to the Groundwater Model Report.
Schedule assumes EPD to provide comments 60 days from FS submittal.



Notes:
Source based on CAD drawing, IRM, Retec, 1997; Ownership status updated based on discussion with AGLC, 12/2009.

Onsite Properties
AGLC-owned, Offsite Properties
Non-AGLC-owned, Offsite Properties

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Former Manufactured Gas Plant
Augusta, Georgia

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Augusta MGP
Onsite & Offsite Properties
Site Conceptual Model Addendum- 2/2012

Figure
1-3

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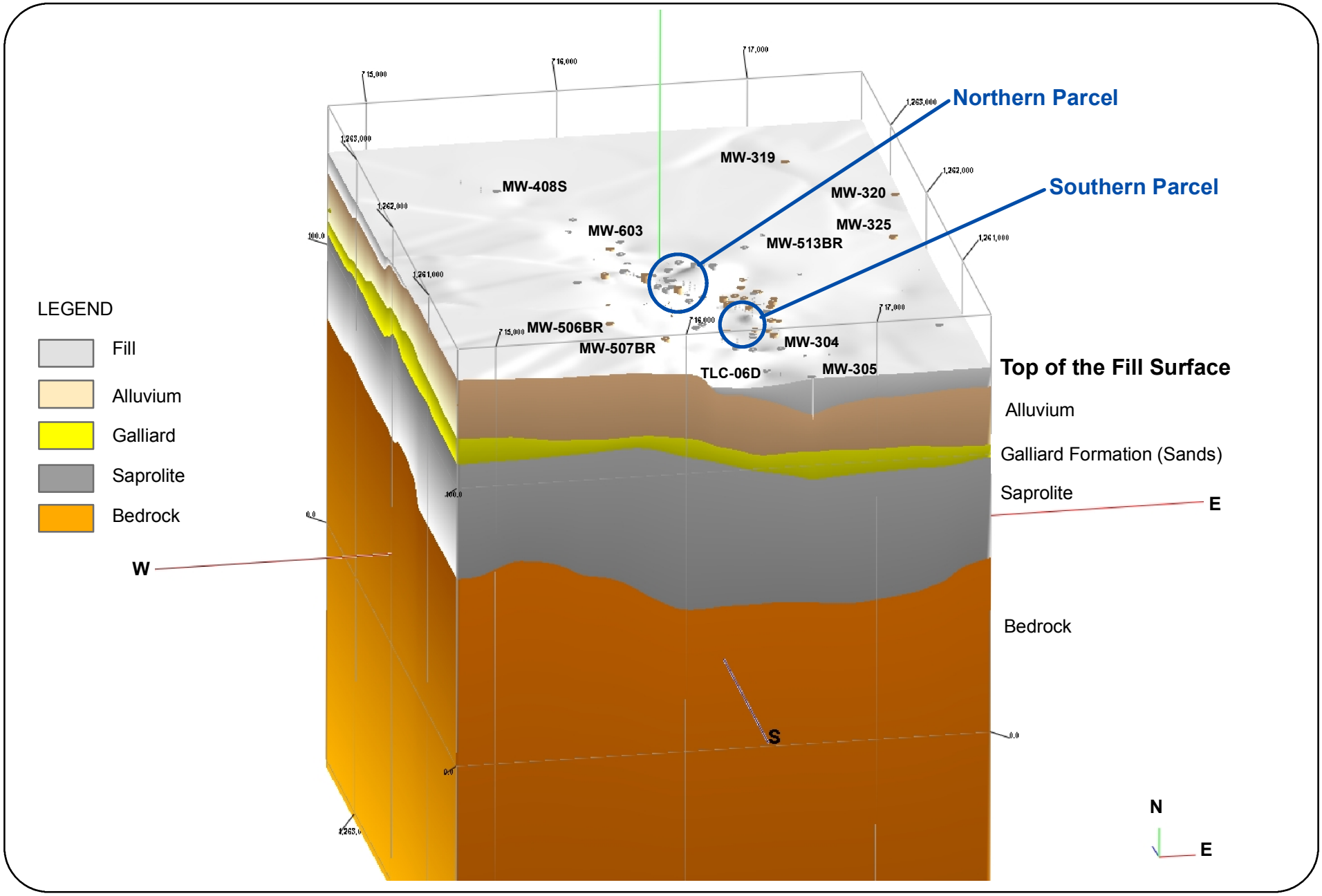
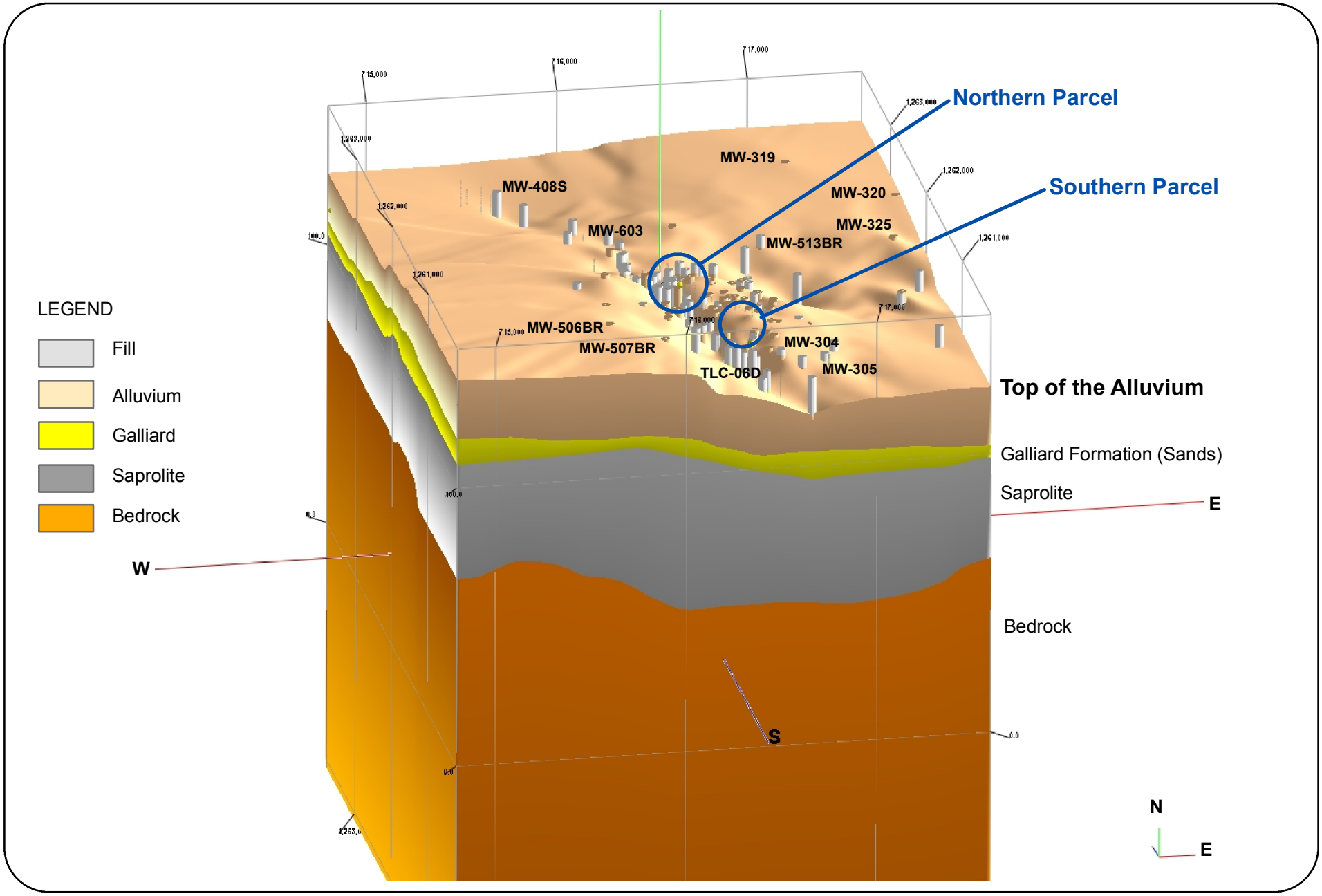
Drafter: BM
Chkd By: W. Kazi
Date Revised: 2/16/2012
Proj Mgr: H. Ernst
Project: AGL Augusta MGP Site



Notes:

Atlanta Gas Light Company Former Manufactured Gas Plant Augusta, Georgia	ENVIRONMENTAL COST MANAGEMENT, INC. *Managing Cost and Liability* 3525 Hyland Avenue, Suite 200 Costa Mesa CA 92626 Tel: (714) 662-2759 Fax: (714) 662-2758 www.ecostmanage.com	**Stratigraphic Model** **Top of the Fill Surface** Site Conceptual Model Addendum - 2/2012	Figure **3-5**

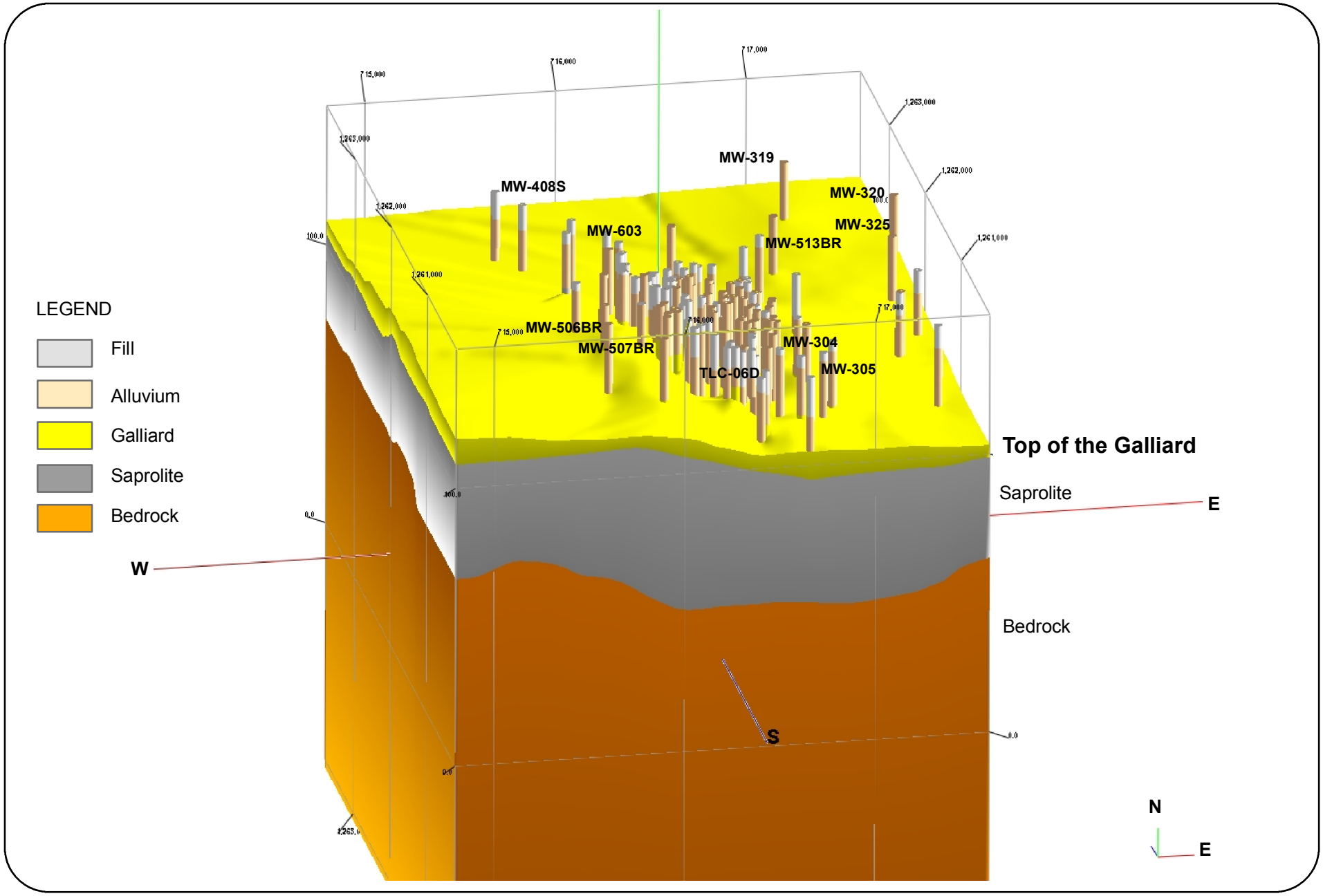
Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-5.MXD



Notes:

Atlanta Gas Light Company Former Manufactured Gas Plant Augusta, Georgia	ENVIRONMENTAL COST MANAGEMENT, INC. *Managing Cost and Liability* 3525 Hyland Avenue, Suite 200 Costa Mesa CA 92626 Tel: (714) 662-2759 Fax: (714) 662-2758 www.ecostmanage.com	**Stratigraphic Model** **Top of the Alluvium Surface** Site Conceptual Model Addendum - 2/2012	Figure **3-6**

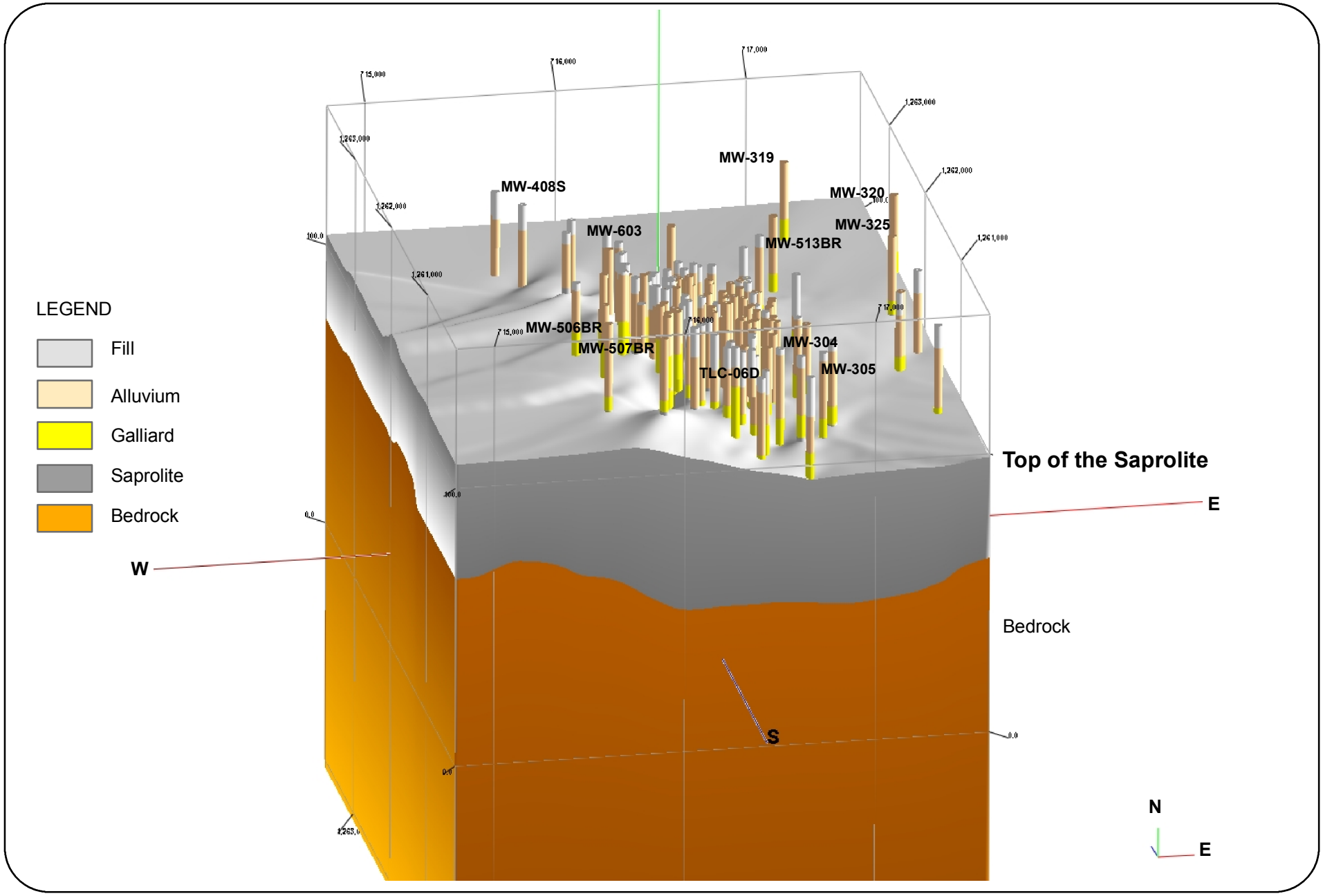
Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-6.MXD



Notes:

Atlanta Gas Light Company Former Manufactured Gas Plant Augusta, Georgia	ENVIRONMENTAL COST MANAGEMENT, INC. *Managing Cost and Liability* 3525 Hyland Avenue, Suite 200 Costa Mesa CA 92626 Tel: (714) 662-2759 Fax: (714) 662-2758 www.ecostmanage.com	**Stratigraphic Model** **Top of the Galliard Surface** Site Conceptual Model Addendum - 2/2012	Figure **3-7**

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-7.MXD



Notes:

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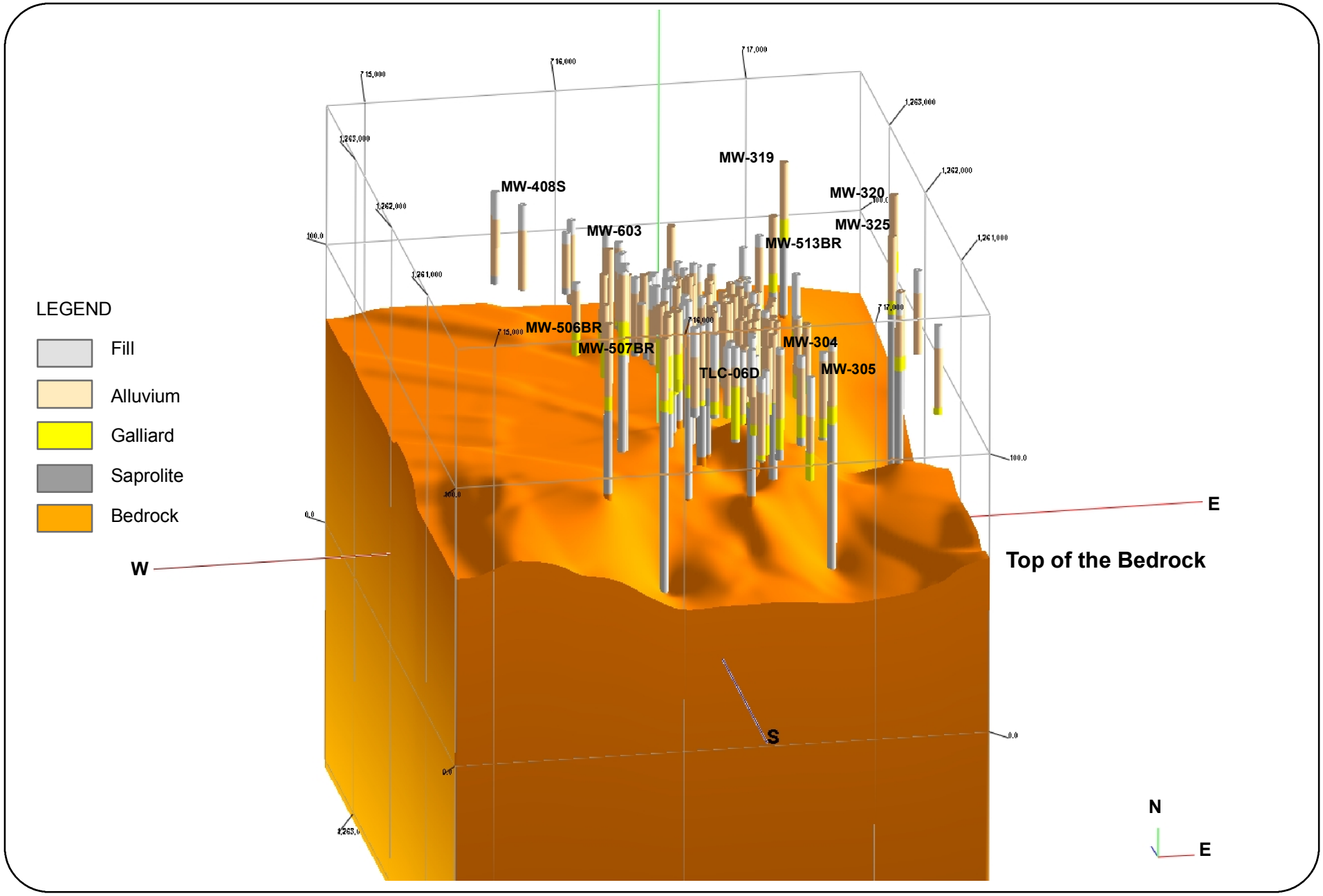
Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-8.MXD



Notes:

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Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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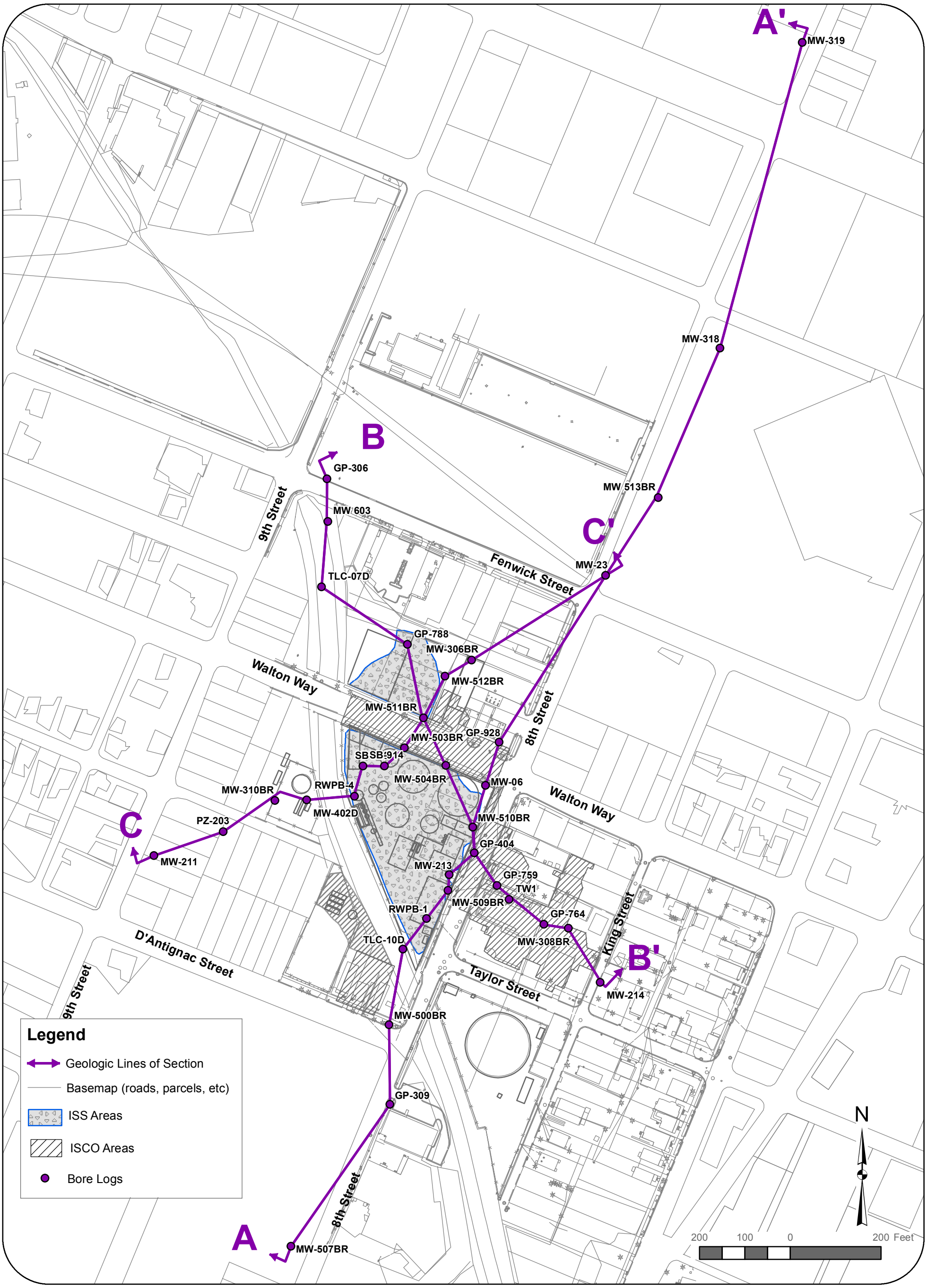

Notes:

The lines of section and boreholes depicted on this transect map apply to the cross section diagrams showing computed lithology (Figs 3-11, 3-12 & 3-13) and conceptual lithology (Figs 3-14, 3-15 & 3-16) in this report.

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Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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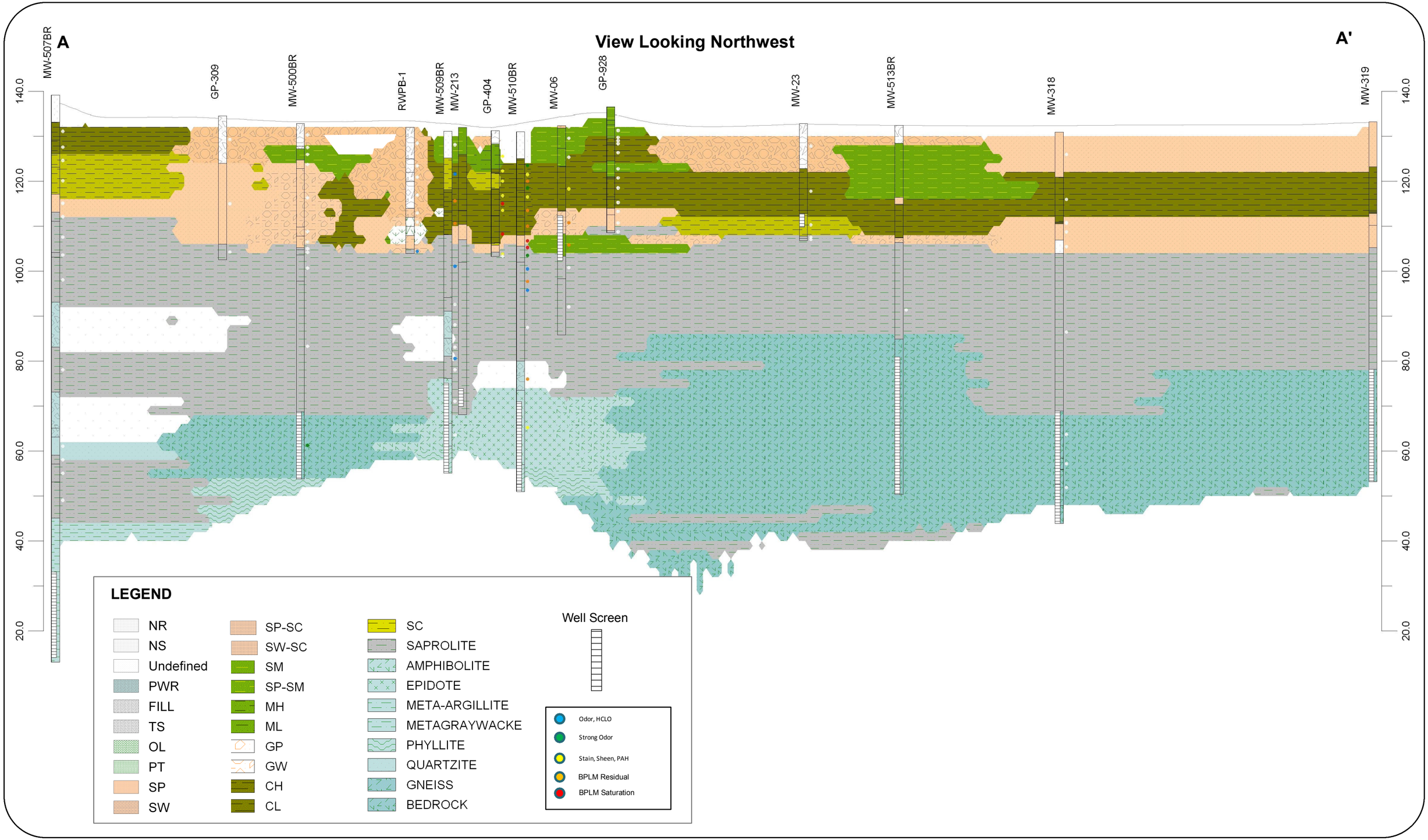

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\FINAL\Fig_3-11.mxd

Notes:
Vertical scale approximately 1"=20'
Horizontal scale approximately 1"=200'
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

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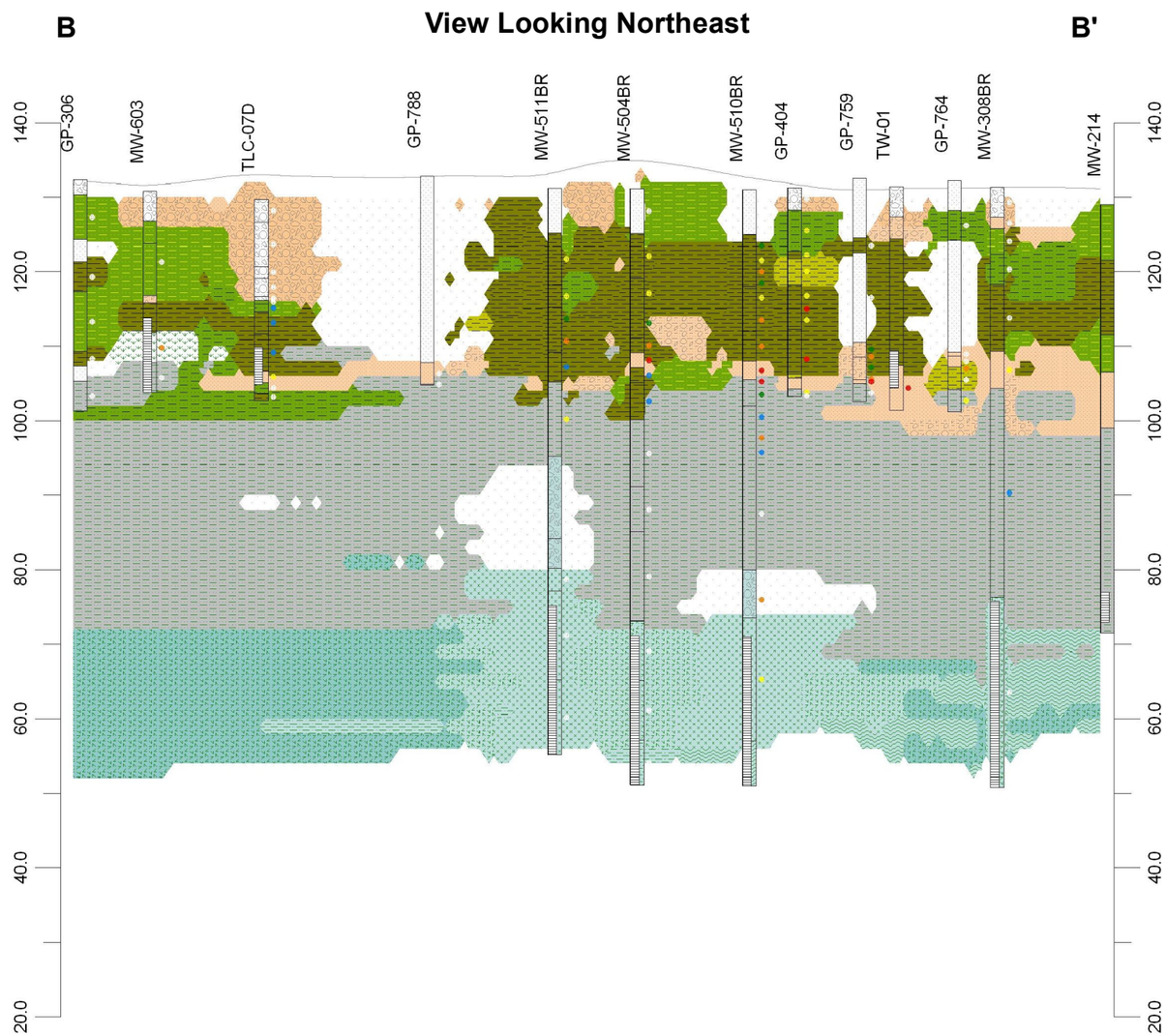
Computed Lithologic Cross Section A-A'

Site Conceptual Model Addendum - 2/2012

Figure
3-11



LEGEND

- NR
- NS
- Undefined
- PWR
- FILL
- TS
- OL
- PT
- SP
- SW
- SP-SC
- SW-SC
- SM
- SP-SM
- MH
- ML
- GP
- GW
- CH
- CL
- SC
- SAPROLITE
- AMPHIBOLITE
- EPIDOTE
- META-ARGILLITE
- METAGRAYWACKE
- PHYLLITE
- QUARTZITE
- GNEISS
- BEDROCK

Well Screen

- Odor, HCLO
- Strong Odor
- Stain, Sheen, PAH
- Residual
- Saturation

Notes:

Vertical scale approximately 1"=20'

Horizontal scale approximately 1"=200'

Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

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Computed Lithologic Cross Section B-B'

Site Conceptual Model Addendum - 2/2012

Figure **3-12**

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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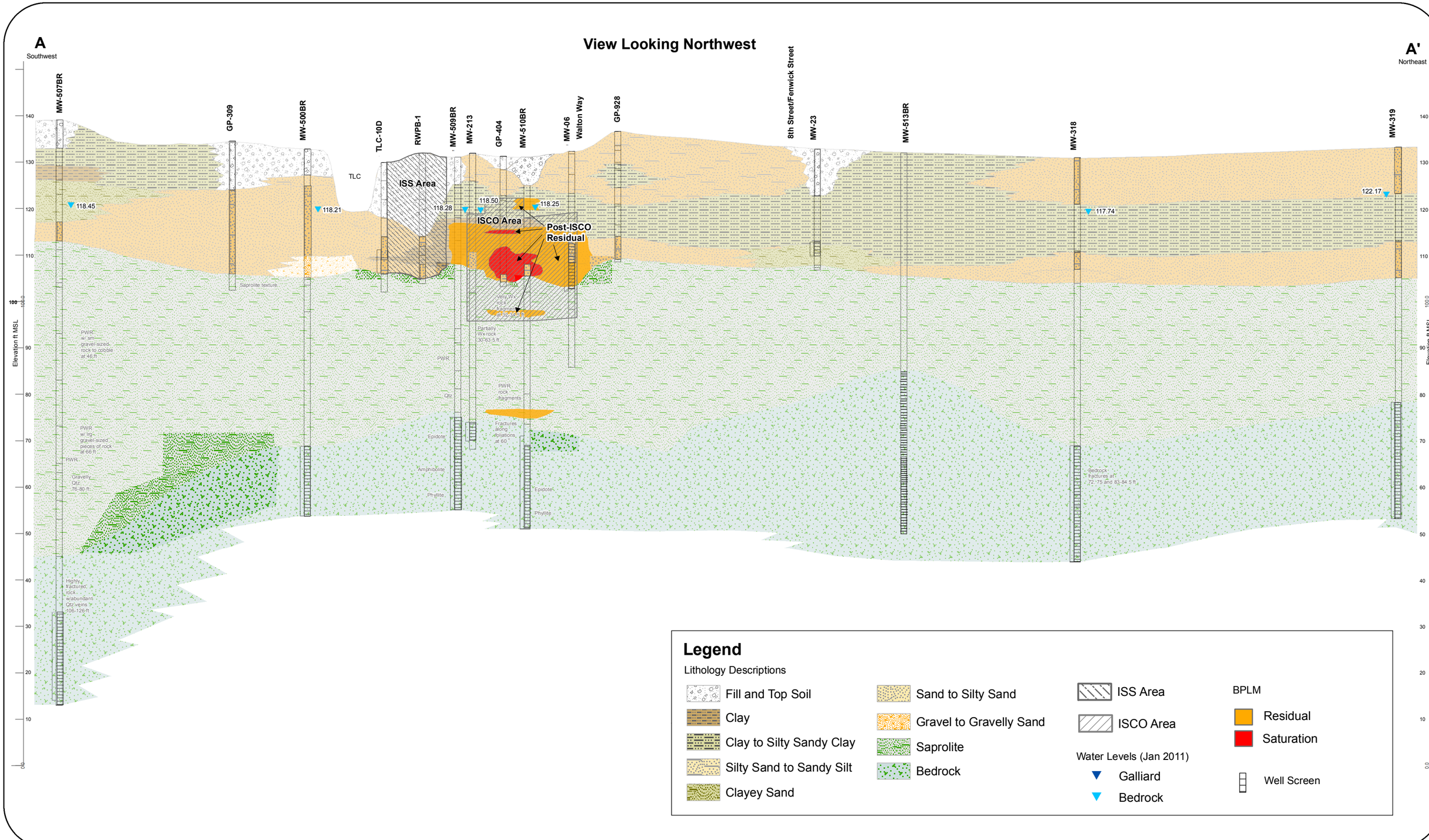

Notes:
Vertical scale approximately 1"=20'. Horizontal scale approximately 1"=200'.
TLC = Third Level Canal
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.
This is a hole-to-hole section. MW-509BR, MW-213 & MW-510BR are outside of ISS columns.

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Conceptual Lithologic Cross Section A-A'

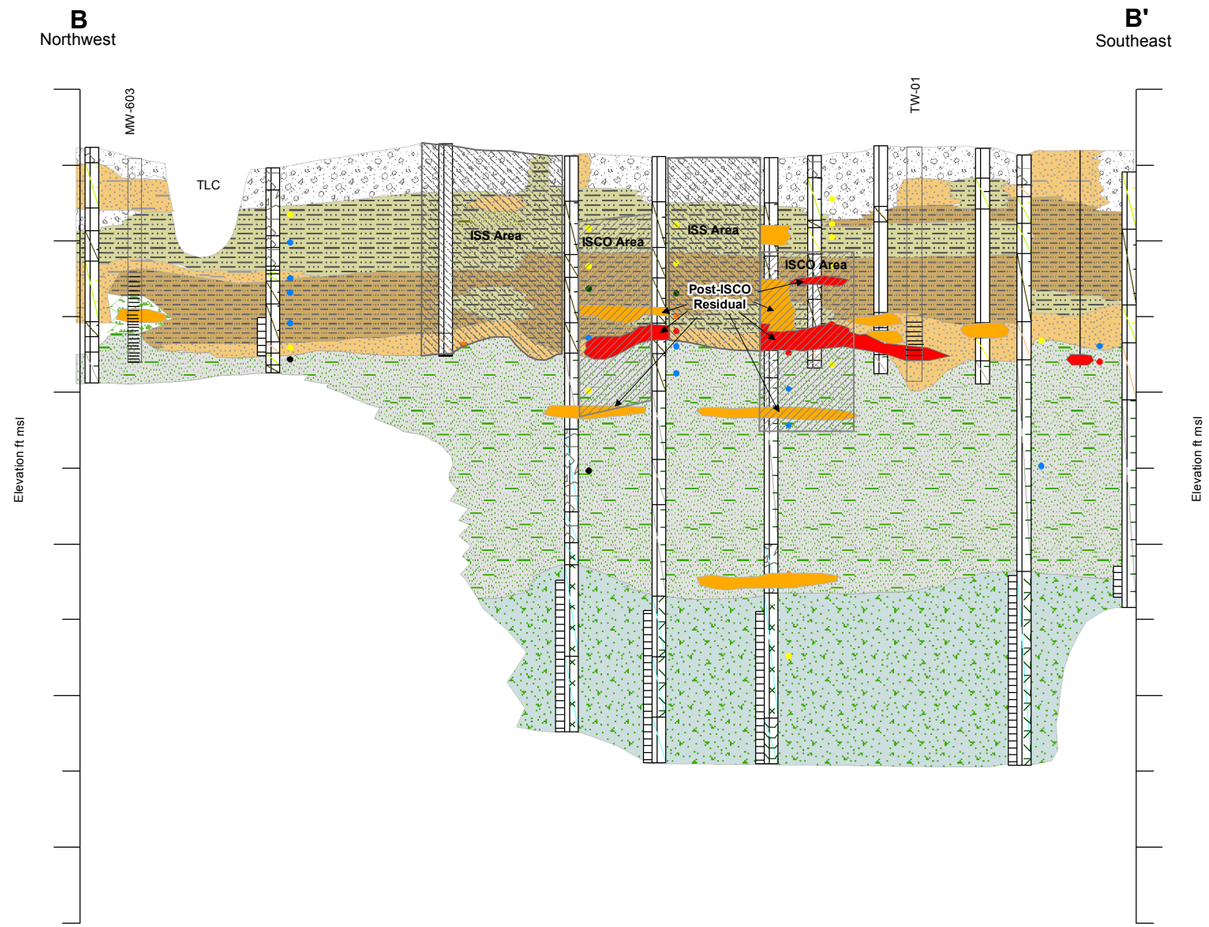
Site Conceptual Model Addendum - 2/2012

Figure
3-14

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-14.MXD

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGLAUGUSTA\ARCGIS\MXD\SCM\Fig_3-15.MXD

View Looking Northeast



Legend

Lithology Descriptions

- Fill and Top Soil
- Clay
- Clay to Silty Sandy Clay
- Silty Sand to Sandy Silt
- Clayey Sand
- Sand to Silty Sand
- Gravel to Gravelly Sand
- Saprolite
- Bedrock
- ISS Area
- ISCO Area

BPLM

- Residual
- Saturation
- Well Screen

Notes:

Vertical scale approximately 1"=20'. Horizontal scale approximately 1"=200'.

TLC = Third Level Canal

Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

This is a hole-to-hole section. MW-511BR, MW-504BR & MW-510BR are outside of ISS columns.

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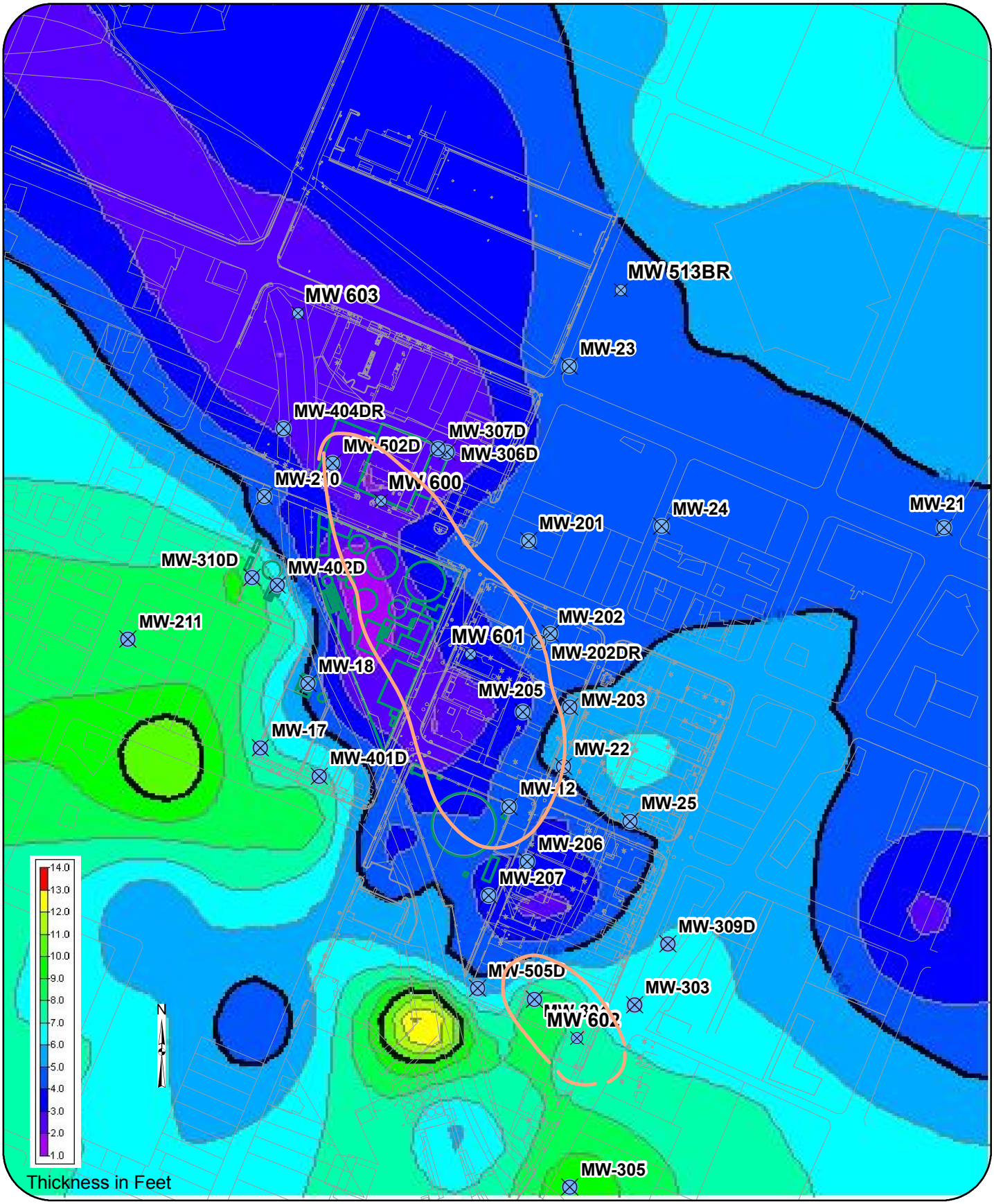
Conceptual Lithologic Cross Section B-B'

Site Conceptual Model Addendum - 2/2012

Figure

3-15



300 150 0 300 Feet

Legend

Extent of dissolved benzene, January 2011 sampling event, 100 ug/L contour shown.

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Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Drafted: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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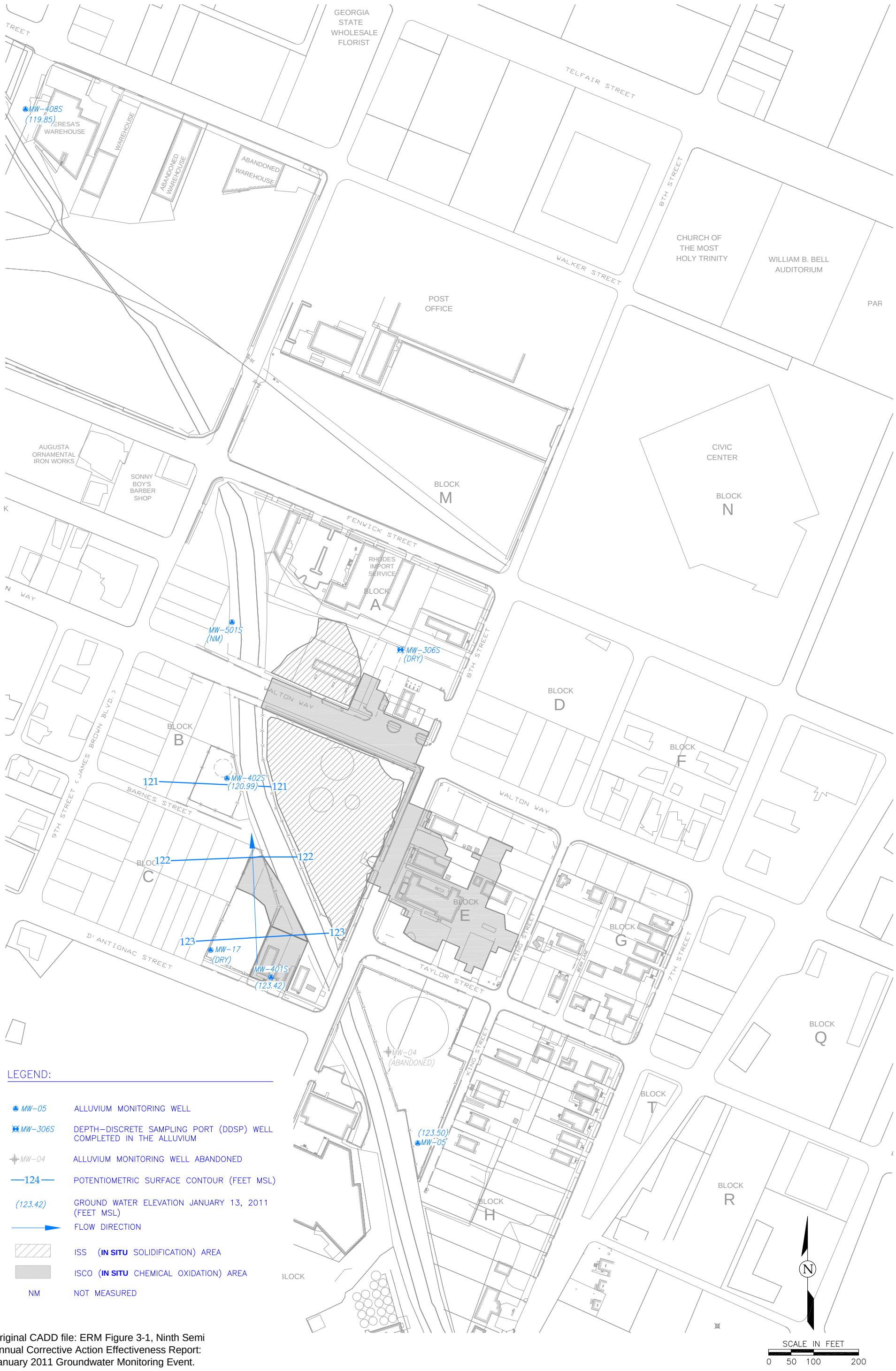

LEGEND:

MW-05	ALLUVIUM MONITORING WELL
MW-306S	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN THE ALLUVIUM
MW-04	ALLUVIUM MONITORING WELL ABANDONED
124	POTENTIOMETRIC SURFACE CONTOUR (FEET MSL)
(123.42)	GROUND WATER ELEVATION JANUARY 13, 2011 (FEET MSL)
	FLOW DIRECTION
	ISS (**IN SITU** SOLIDIFICATION) AREA
	ISCO (**IN SITU** CHEMICAL OXIDATION) AREA
NM	NOT MEASURED

Original CADD file: ERM Figure 3-1, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Water Table Elevations Map
Alluvium
Site Conceptual Model Addendum - 2/2012

Figure
3-22

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
File Path: **B:\AGL\AugustaRevised SCM**

LEGEND:

MW-309D	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL
MW-12	GALLIARD MONITORING WELL
MW-18	GALLIARD MONITORING WELL ABANDONED
123	POTENTIOMETRIC SURFACE CONTOUR (FEET MSL)
(120.17)	GROUND WATER ELEVATION JANUARY 13, 2011 (FEET MSL)
	FLOW DIRECTION
	ISS (**IN SITU** SOLIDIFICATION) AREA
	ISCO (**IN SITU** CHEMICAL OXIDATION) AREA
	GROUND WATER TROUGH
NM	NOT MEASURED

NOTES:

* MW-206 WAS NOT USED FOR CONTOURING

Original CADD file: ERM Figure 3-2, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Tel: (714) 662-2759 ● Fax: (714) 662-2758

Water Table Elevation Map
Galliard
Site Conceptual Model Addendum - 2/2012

Figure
3-23

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
File Path: **B:\AGL\Augusta\Revised SCM**

LEGEND:

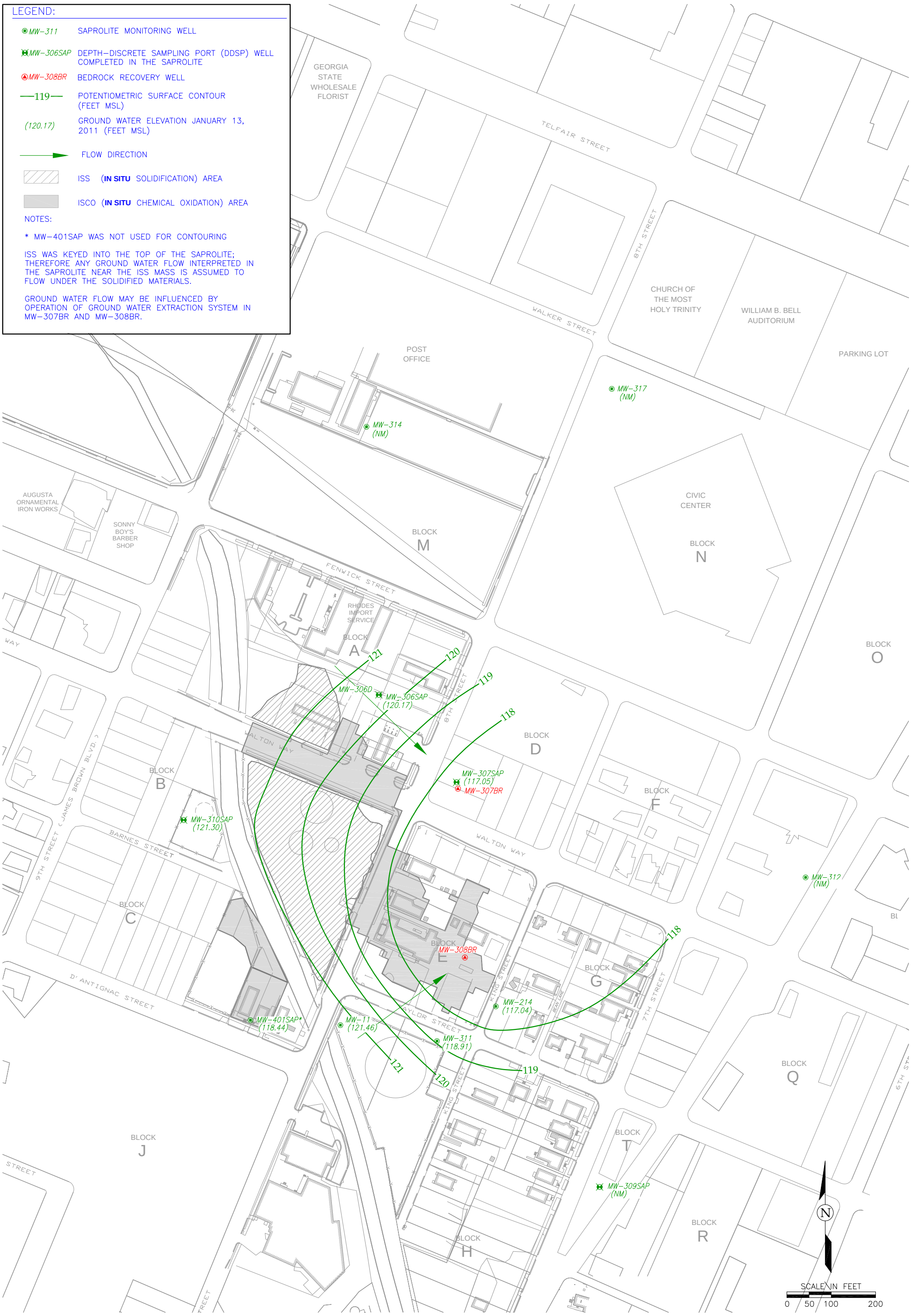
- MW-311 — SAPROLITE MONITORING WELL
- MW-306SAP — DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN THE SAPROLITE
- MW-308BR — BEDROCK RECOVERY WELL
- 119 — POTENTIOMETRIC SURFACE CONTOUR (FEET MSL)
- (120.17) — GROUND WATER ELEVATION JANUARY 13, 2011 (FEET MSL)
- FLOW DIRECTION
- ISS (**IN SITU** SOLIDIFICATION) AREA
- ISCO (**IN SITU** CHEMICAL OXIDATION) AREA

NOTES:

* MW-401SAP WAS NOT USED FOR CONTOURING

ISS WAS KEYED INTO THE TOP OF THE SAPROLITE; THEREFORE ANY GROUND WATER FLOW INTERPRETED IN THE SAPROLITE NEAR THE ISS MASS IS ASSUMED TO FLOW UNDER THE SOLIDIFIED MATERIALS.

GROUND WATER FLOW MAY BE INFLUENCED BY OPERATION OF GROUND WATER EXTRACTION SYSTEM IN MW-307BR AND MW-308BR.



Original CADD file: ERM Figure 3-3, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
File Path: **B:\AGL\Augusta\Revised SCM**

LEGEND:

MW-315	BEDROCK MONITORING WELL
MW-308BR	BEDROCK RECOVERY WELL
MW-306TZ	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN TRANSITION ZONE (NOT USED FOR CONTOURING)
117	POTENTIOMETRIC SURFACE CONTOUR (FEET MSL – DASHED WHERE INFERRED)
(118.80)	GROUND WATER ELEVATION JANUARY 13, 2011 (FEET MSL)
	POTENTIAL DIRECTION
	ISS (**IN SITU** SOLIDIFICATION) AREA
	ISCO (**IN SITU** CHEMICAL OXIDATION) AREA
	GROUND WATER TROUGH

NOTES:

GROUND WATER FLOW INFLUENCED BY OPERATION OF GROUND WATER EXTRACTION SYSTEM IN MW-307BR AND MW-308BR.

ISS WAS KEYED INTO THE TOP OF THE SAPROLITE; THEREFORE, ANY GROUND WATER FLOW INTERPRETED IN THE BEDROCK NEAR THE ISS MASS IS ASSUMED TO FLOW UNDER THE MATERIALS SOLIDIFIED.

GEORGIA STATE WHOLESALE FLORIST
TELFAIR STREET
WALKER STREET
8TH STREET
CHURCH OF THE MOST HOLY TRINITY
WILLIAM B. BELL AUDITORIUM
PARKING LOT
POST OFFICE
CIVIC CENTER
GUSTA AMENTAL N WORKS
SONNY BOY'S BARBER SHOP
FENWICK STREET
RHODES IMPORT SERVICE
WALTON STREET
WALTON WAY
BARNES STREET
9TH STREET (JAMES BROWN BLVD.)
D'ANTIGNAC STREET
TAYLOR STREET
KING STREET
7TH STREET
6TH STREET
BLOCK A
BLOCK B
BLOCK C
BLOCK D
BLOCK F
BLOCK G
BLOCK H
BLOCK I
BLOCK J
BLOCK M
BLOCK N
BLOCK O
BLOCK P
BLOCK Q
BLOCK R
BLOCK T

MW-319 (122.17)
MW-320 (121.42)
MW-318 (117.74)
MW-315 (119.54)
(117.95) MW-513BR
MW-325 (119.29)
MW-306BR (118.57)
MW-306TZ (118.80)
MW-512BR (118.66)
MW-511BR (118.95)
MW-503BR (118.69)
MW-504BR (118.67)
MW-310TZ (119.52)
MW-310BR (119.49)
MW-510BR (118.25)
MW-509BR (118.28)
MW-308BR
MW-213 (118.50)
MW-500BR (118.21)
MW-508BR (116.90)
MW-506BR (118.62)
MW-507BR (118.45)
MW-307TZ (118.18)
MW-307BR
MW-323 (116.32)
MW-324 (116.82)
MW-316 (116.76)
MW-321 (116.57)
MW-322 (116.93)
MW-313 (118.57)
MW-309TZ (119.32)
MW-309BR (118.23)

122
121
120
117
119
118

N

SCALE IN FEET
0 50 100 200

Original CADD file: ERM Figure 3-4, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
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Drafter: **JWP**
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Former Manfactured Gas Plant
Augusta , Georgia

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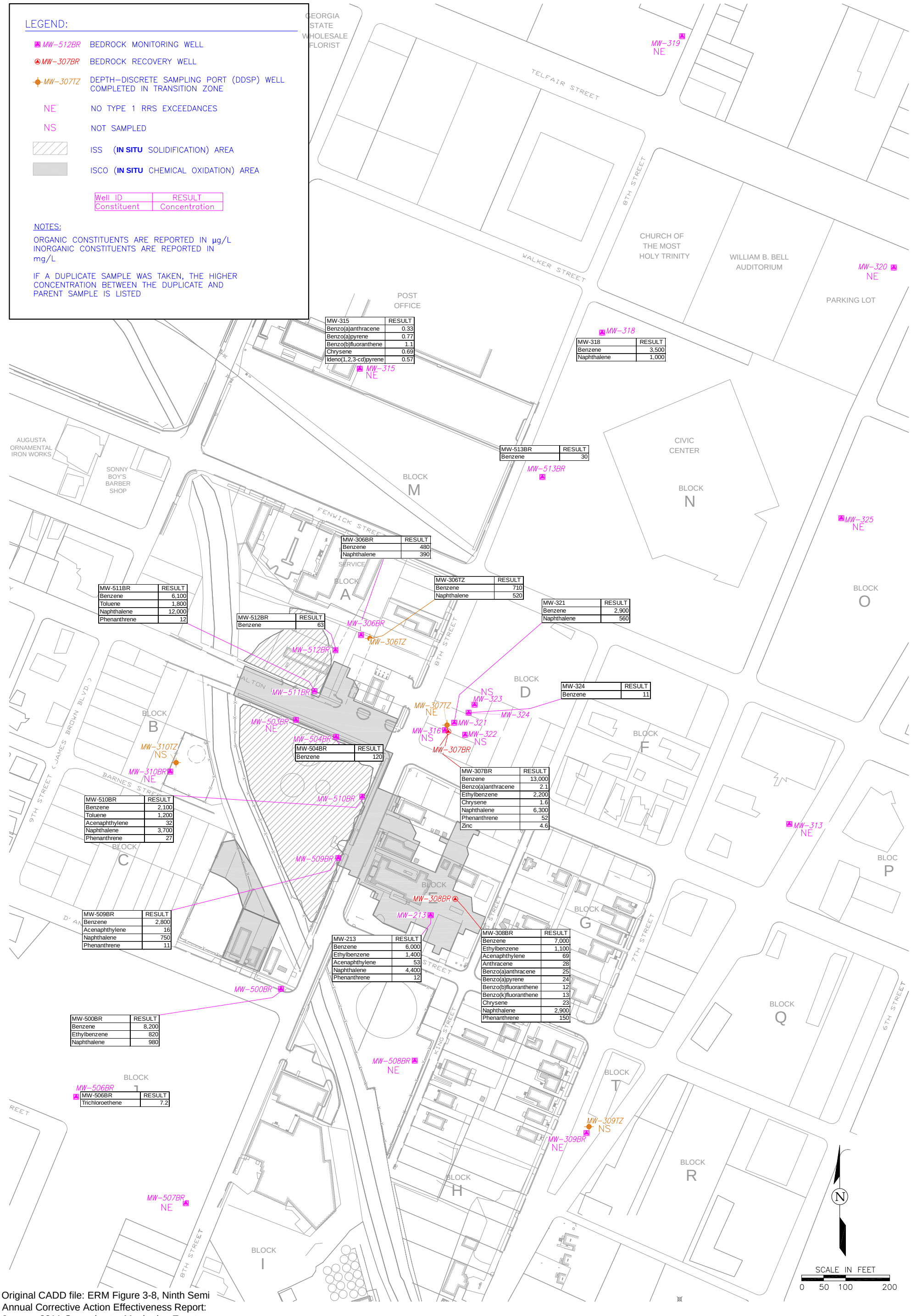
Tel: (714) 662-2759 ● Fax: (714) 662-2758

Potentiometric Surface Map
Bedrock
Site Conceptual Model Addendum - 2/2012

Figure
3-25



Original CADD file: ERM Figure 3-8, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Type I RRS Exceedances
Bedrock and Transition Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-32

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
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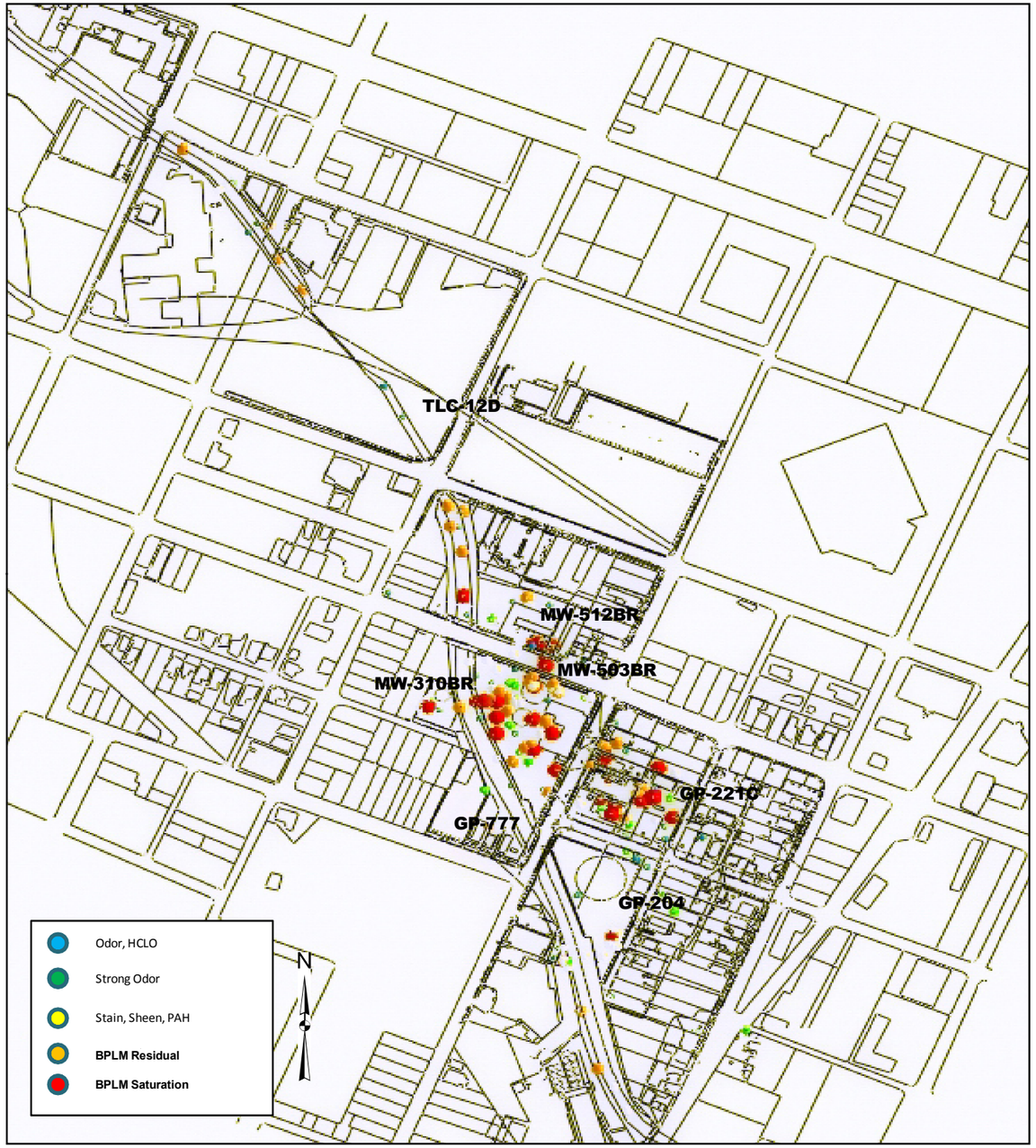
Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Drafted: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\FINAL\Fig_3-35.MXD

Before



After ISS & Excavations

Notes:
BPLM - 3D Galliard Surface and Above
View: This is looking downward in planview onto a 3d surface.
Observations above the Galliard are shown (i.e. in the Alluvium).
Deeper observations may appear obscured by shallower observations.

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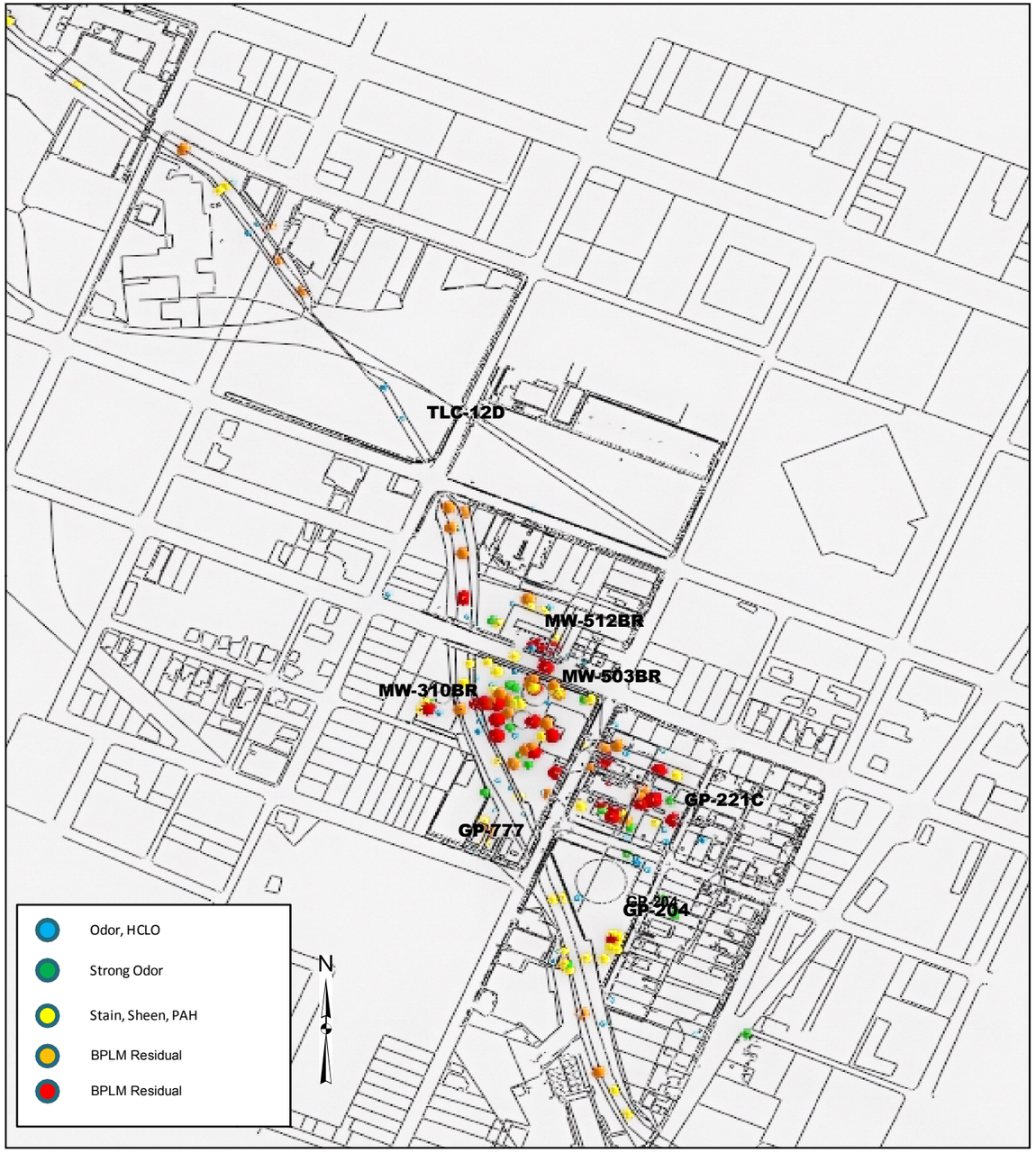
Comparison: Impacts & BPLM (Prior vs Post Remediation) Alluvium

Site Conceptual Model Addendum - 2/2012

Figure
3-35

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Drafted: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\FINAL\Fig_3-36.MXD

Before



After ISS & Excavations

Notes:
BPLM - 3D Saprolite Surface and Above
View: This is looking downward in planview onto a 3d surface.
Observations above the Saprolite are shown (i.e. in the Galliard & Alluvium).
Deeper observations may appear obscured by shallower observations.

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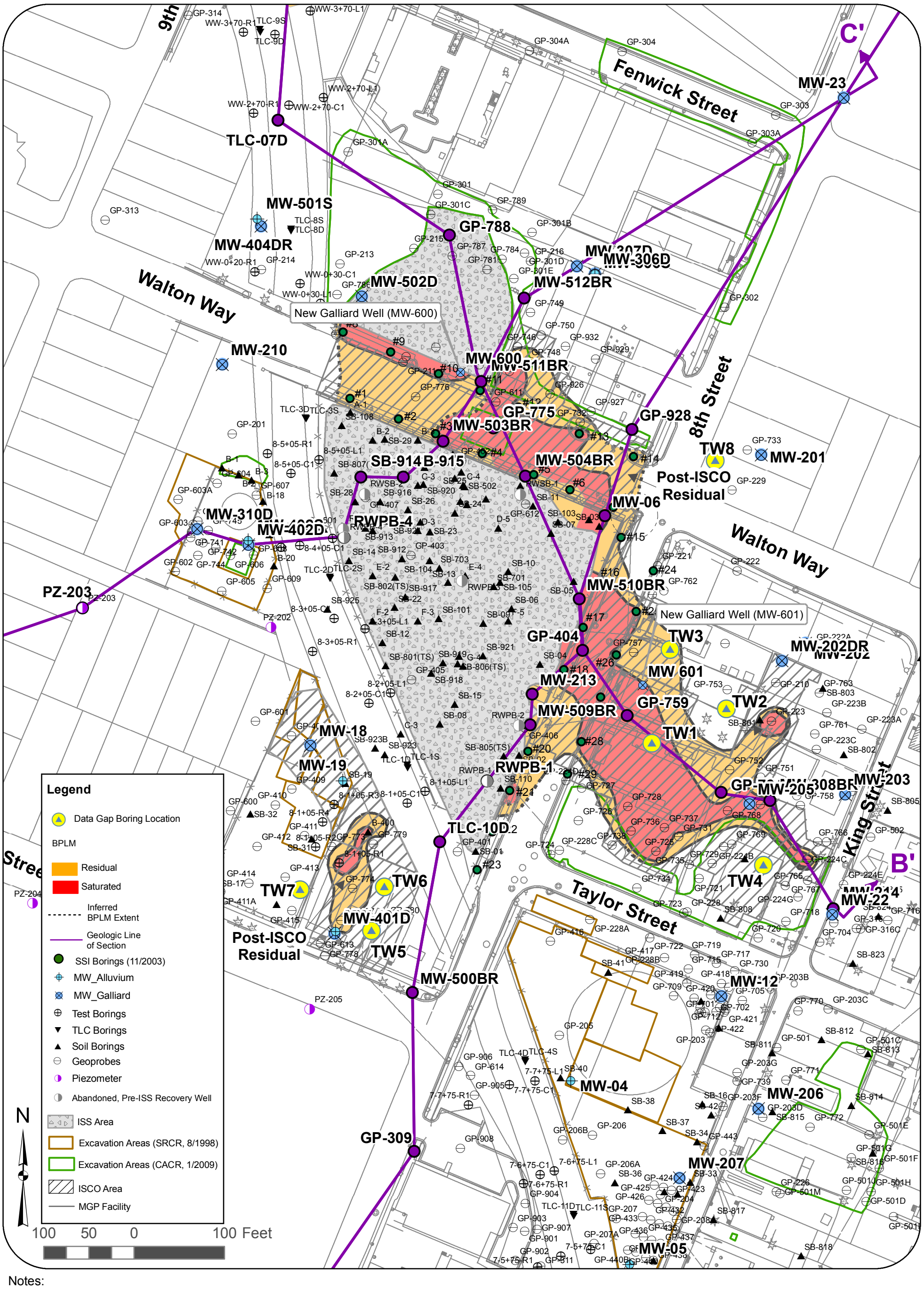
Comparison: Impacts & BPLM (Prior vs Post Remediation) Galliard & Alluvium

Site Conceptual Model Addendum - 2/2012

Figure
3-36



Notes:

BPLM extent revised based on results of data-gap investigation and installation of additional Galliard wells.

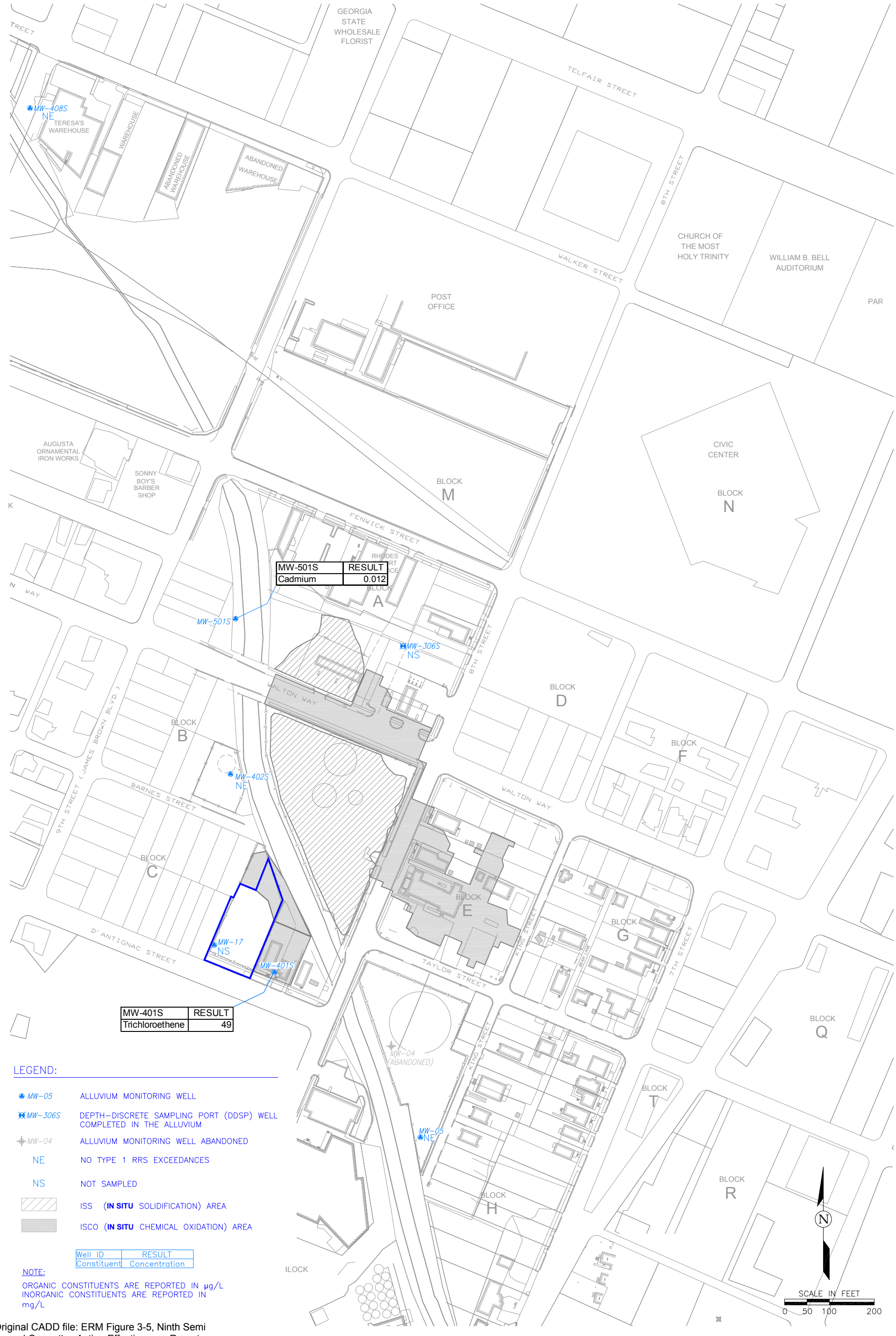
BPLM extent based on visual BPLM observations (before remediation) during boring and drilling; adjusted with the removal of BPLM in areas of In-Situ Solidification (ISS) and excavation; and comparison to 3d BPLM source model.

Extent shown onservatively assumes that observed BPLM were not reduced by ISCO.

Excavation areas for offsite properties from Corrective Action Closure Report (CACR), Mactec, 1/16/2009.

Excavation areas for Western, Southern & Southeastern Bituminous Co (SEB) parcels from Soil Removal Completion Report (SRCR), Retec, 8/1998.

Atlanta Gas Light Company Former Manufactured Gas Plant Augusta, Georgia	**ENVIRONMENTAL COST MANAGEMENT, INC.** *Managing Cost and Liability* 3525 Hyland Avenue, Suite 200 Costa Mesa CA 92626 Tel: (714) 662-2759 Fax: (714) 662-2758 www.ecostmanage.com	**Extent of BPLM Observations In Alluvium and Galliard Units** Site Conceptual Model Addendum - 2/2012	Figure 3-37



MW-501S	RESULT
Cadmium	0.012

MW-401S	RESULT
Trichloroethene	49

LEGEND:

MW-05	ALLUVIUM MONITORING WELL
MW-306S	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN THE ALLUVIUM
MW-04	ALLUVIUM MONITORING WELL ABANDONED
NE	NO TYPE 1 RRS EXCEEDANCES
NS	NOT SAMPLED
	ISS (**IN SITU** SOLIDIFICATION) AREA
	ISCO (**IN SITU** CHEMICAL OXIDATION) AREA

Well ID	RESULT
Constituent	Concentration

NOTE:

ORGANIC CONSTITUENTS ARE REPORTED IN µg/L
INORGANIC CONSTITUENTS ARE REPORTED IN mg/L

Original CADD file: ERM Figure 3-5, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Type I RRS Exceedances
Alluvium Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-40A

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **2/08/2012**
Chkd by: **H. Ernst**
Drafter: **JWP**
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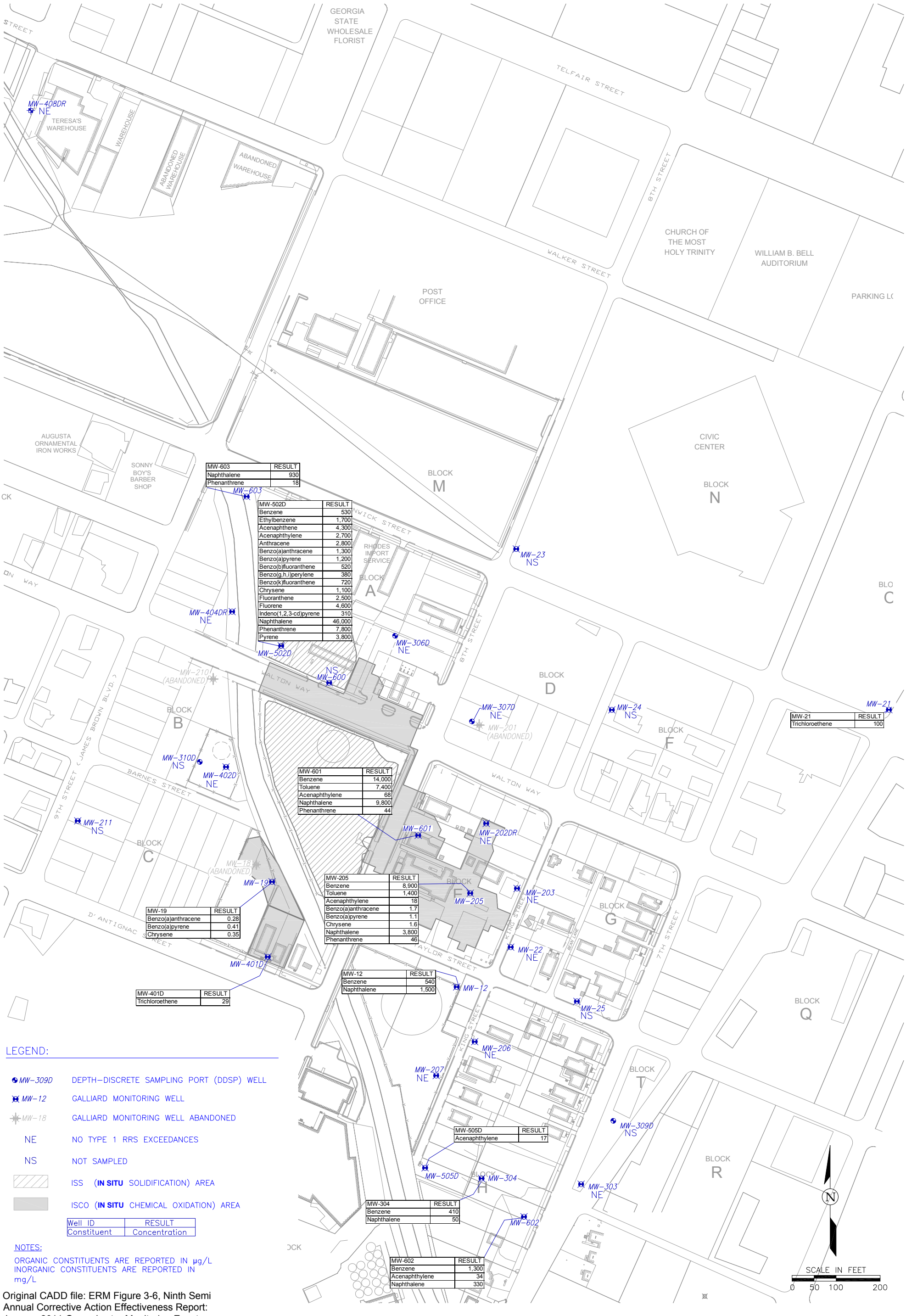

MW-603	RESULT
Naphthalene	930
Phenanthrene	18

MW-502D	RESULT
Benzene	530
Ethylbenzene	1,700
Acenaphthene	4,300
Acenaphthylene	2,700
Anthracene	2,800
Benzo(a)anthracene	1,300
Benzo(a)pyrene	1,200
Benzo(b)fluoranthene	520
Benzo(g,h,i)perylene	380
Benzo(k)fluoranthene	720
Chrysene	1,100
Fluoranthene	2,500
Fluorene	4,600
Indeno(1,2,3-cd)pyrene	310
Naphthalene	46,000
Phenanthrene	7,800
Pyrene	3,800

MW-21	RESULT
Trichloroethene	100

MW-601	RESULT
Benzene	14,000
Toluene	7,400
Acenaphthylene	68
Naphthalene	9,800
Phenanthrene	44

MW-205	RESULT
Benzene	8,900
Toluene	1,400
Acenaphthylene	18
Benzo(a)anthracene	1.7
Benzo(a)pyrene	1.1
Chrysene	1.6
Naphthalene	3,800
Phenanthrene	46

MW-19	RESULT
Benzo(a)anthracene	0.28
Benzo(a)pyrene	0.41
Chrysene	0.35

MW-401D	RESULT
Trichloroethene	29

MW-12	RESULT
Benzene	540
Naphthalene	1,500

MW-505D	RESULT
Acenaphthylene	17

MW-304	RESULT
Benzene	410
Naphthalene	50

MW-602	RESULT
Benzene	1,300
Acenaphthylene	34
Naphthalene	330

LEGEND:

- MW-309D — DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL
- MW-12 — GALLIARD MONITORING WELL
- MW-18 — GALLIARD MONITORING WELL ABANDONED
- NE — NO TYPE 1 RRS EXCEEDANCES
- NS — NOT SAMPLED
- ISS (**IN SITU** SOLIDIFICATION) AREA
- ISCO (**IN SITU** CHEMICAL OXIDATION) AREA

Well ID	RESULT
Constituent	Concentration

NOTES:

ORGANIC CONSTITUENTS ARE REPORTED IN µg/L
INORGANIC CONSTITUENTS ARE REPORTED IN mg/L

Original CADD file: ERM Figure 3-6, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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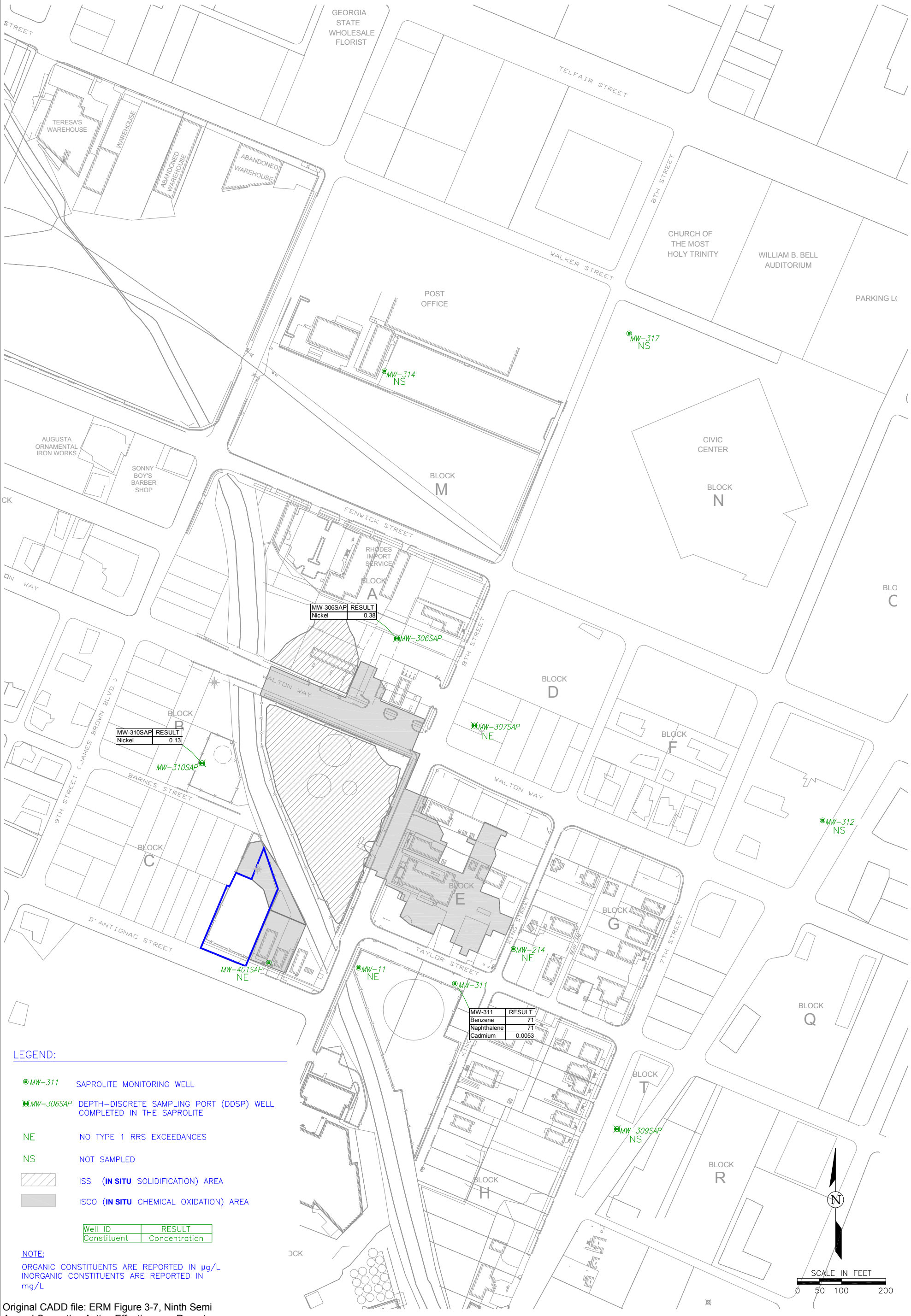
Type I RRS Exceedances
Galliard Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-40B

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
File Path: **B:\AGL\AugustaRevised SCM**



MW-306SAP	RESULT
Nickel	0.38

MW-310SAP	RESULT
Nickel	0.13

MW-311	RESULT
Benzene	71
Naphthalene	71
Cadmium	0.0053

LEGEND:

MW-311 SAPROLITE MONITORING WELL

MW-306SAP DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN THE SAPROLITE

NE NO TYPE 1 RRS EXCEEDANCES

NS NOT SAMPLED

ISS (**IN SITU** SOLIDIFICATION) AREA

ISCO (**IN SITU** CHEMICAL OXIDATION) AREA

Well ID	RESULT
Constituent	Concentration

NOTE:

ORGANIC CONSTITUENTS ARE REPORTED IN µg/L
INORGANIC CONSTITUENTS ARE REPORTED IN mg/L

Original CADD file: ERM Figure 3-7, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

Atlanta Gas Light Company
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Augusta , Georgia

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Type I RRS Exceedances
Saprolite Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-40C

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **2/08/2012**
Chkd by: **H. Ernst**
Drafter: **JWP**
File Path: **B:\AGL\Augusta\Revised SCM**

LEGEND:

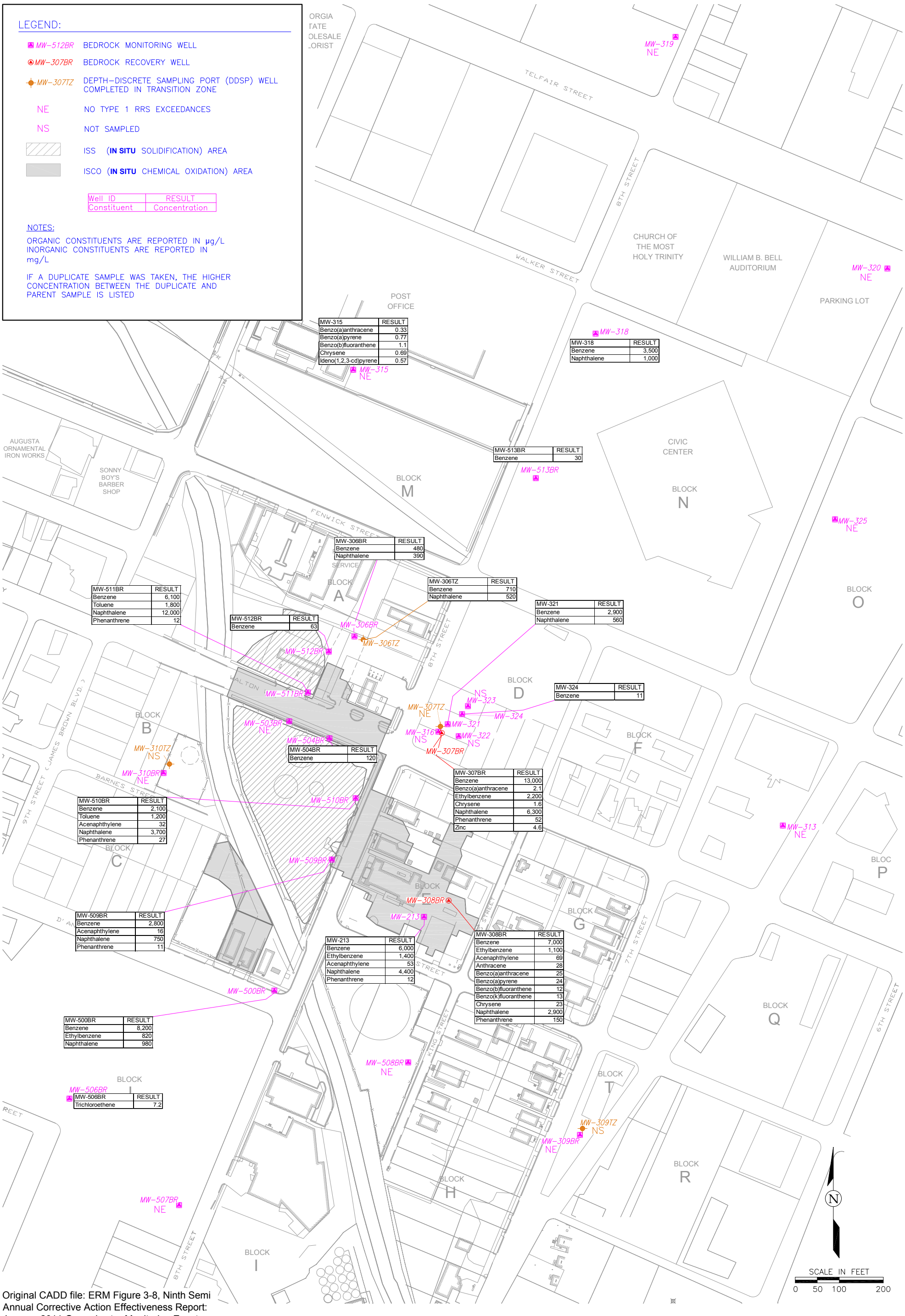
- MW-512BR — BEDROCK MONITORING WELL
- MW-307BR — BEDROCK RECOVERY WELL
- MW-307TZ — DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL COMPLETED IN TRANSITION ZONE
- NE — NO TYPE 1 RRS EXCEEDANCES
- NS — NOT SAMPLED
- ISS (**IN SITU** SOLIDIFICATION) AREA
- ISCO (**IN SITU** CHEMICAL OXIDATION) AREA

Well ID	RESULT
Constituent	Concentration

NOTES:

ORGANIC CONSTITUENTS ARE REPORTED IN µg/L
INORGANIC CONSTITUENTS ARE REPORTED IN mg/L

IF A DUPLICATE SAMPLE WAS TAKEN, THE HIGHER CONCENTRATION BETWEEN THE DUPLICATE AND PARENT SAMPLE IS LISTED



MW-315	RESULT
Benzo(a)anthracene	0.33
Benzo(a)pyrene	0.77
Benzo(b)fluoranthene	1.1
Chrysene	0.69
Ideno(1,2,3-cd)pyrene	0.57

MW-318	RESULT
Benzene	3,500
Naphthalene	1,000

MW-513BR	RESULT
Benzene	30

MW-306BR	RESULT
Benzene	480
Naphthalene	390

MW-306TZ	RESULT
Benzene	710
Naphthalene	520

MW-321	RESULT
Benzene	2,900
Naphthalene	560

MW-324	RESULT
Benzene	11

MW-511BR	RESULT
Benzene	6,100
Toluene	1,800
Naphthalene	12,000
Phenanthrene	12

MW-512BR	RESULT
Benzene	63

MW-504BR	RESULT
Benzene	120

MW-307BR	RESULT
Benzene	13,000
Benzo(a)anthracene	2.1
Ethylbenzene	2,200
Chrysene	1.6
Naphthalene	6,300
Phenanthrene	52
Zinc	4.6

MW-510BR	RESULT
Benzene	2,100
Toluene	1,200
Acenaphthylene	32
Naphthalene	3,700
Phenanthrene	27

MW-509BR	RESULT
Benzene	2,800
Acenaphthylene	16
Naphthalene	750
Phenanthrene	11

MW-213	RESULT
Benzene	6,000
Ethylbenzene	1,400
Acenaphthylene	53
Naphthalene	4,400
Phenanthrene	12

MW-308BR	RESULT
Benzene	7,000
Ethylbenzene	1,100
Acenaphthylene	69
Anthracene	28
Benzo(a)anthracene	25
Benzo(a)pyrene	24
Benzo(b)fluoranthene	12
Benzo(k)fluoranthene	13
Chrysene	23
Naphthalene	2,900
Phenanthrene	150

MW-500BR	RESULT
Benzene	8,200
Ethylbenzene	820
Naphthalene	980

MW-506BR	RESULT
Trichloroethene	7.2

Original CADD file: ERM Figure 3-8, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Type I RRS Exceedances
Bedrock and Transition Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-40D

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **2/08/2012**
Chkd by: **H. Ernst**
Drafter: **JWP**
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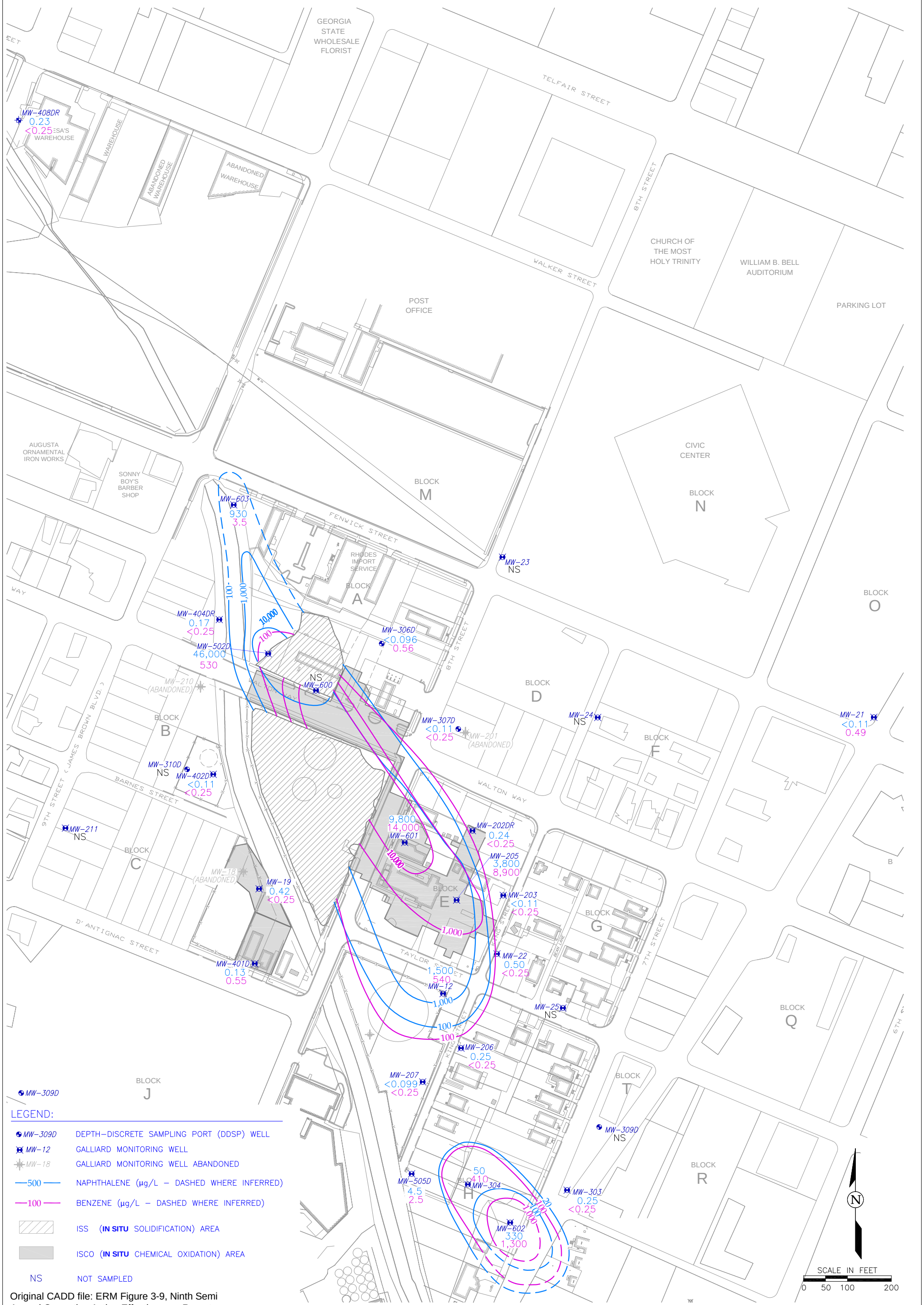

LEGEND:

MW-309D	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL
MW-12	GALLIARD MONITORING WELL
MW-18	GALLIARD MONITORING WELL ABANDONED
500	NAPHTHALENE (µg/L – DASHED WHERE INFERRED)
100	BENZENE (µg/L – DASHED WHERE INFERRED)
	ISS (IN SITU SOLIDIFICATION) AREA
	ISCO (IN SITU CHEMICAL OXIDATION) AREA
NS	NOT SAMPLED

Original CADD file: ERM Figure 3-9, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Extent of Dissolved Phase Impacts In Galliard Wells

Site Conceptual Model Addendum - 2/2012

Figure **3-41**

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
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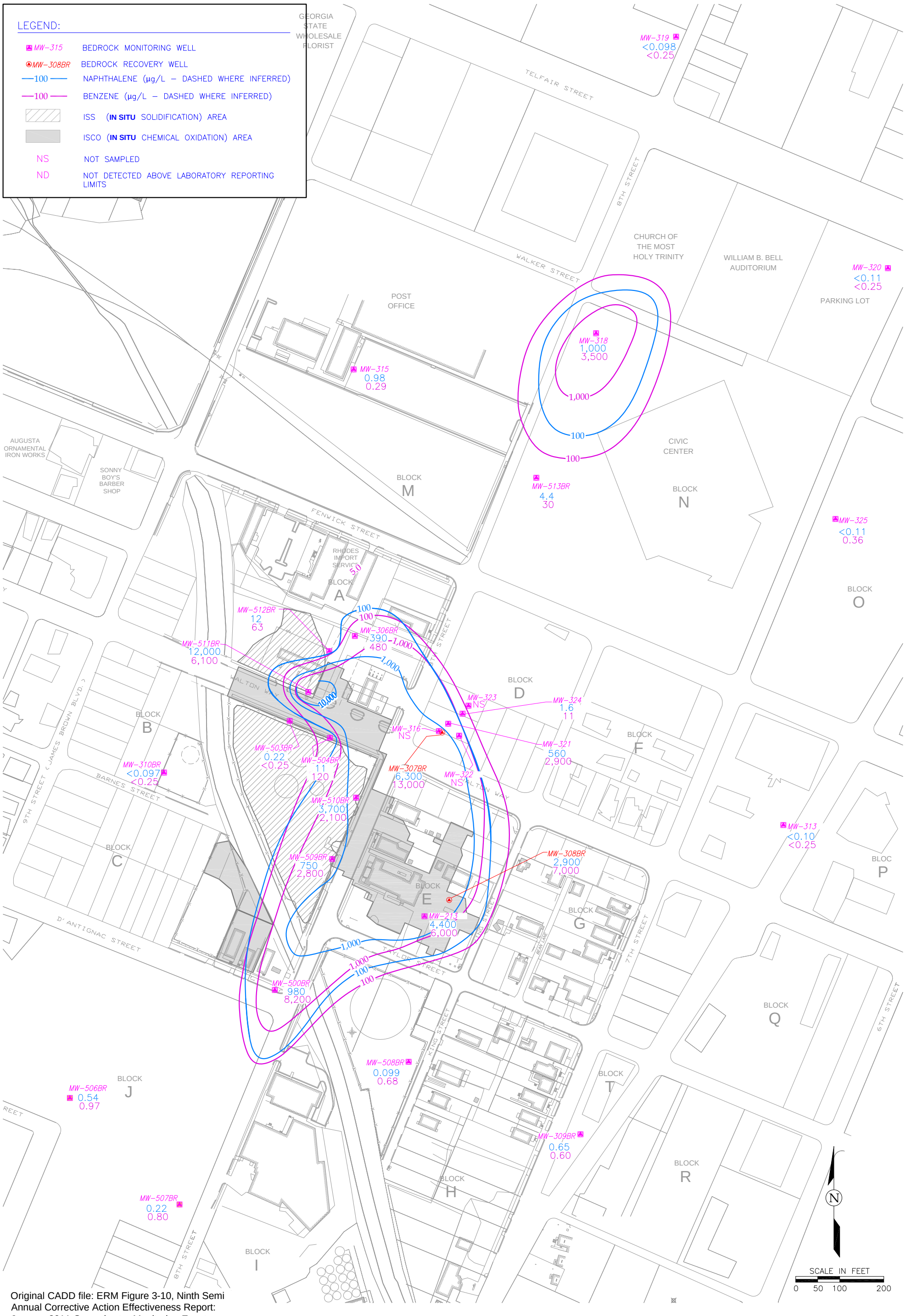

Original CADD file: ERM Figure 3-10, Ninth Semi Annual Corrective Action Effectiveness Report: January 2011 Groundwater Monitoring Event.

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Extent of Dissolved Phase Impacts In Bedrock Wells
Site Conceptual Model Addendum - 2/2012

Figure
3-42

Project: **AGLC-Augusta**
Proj. Manager **H. Ernst**
Date drafted: **6/14/2011**
Chkd by: **W. Kazi**
Drafter: **JWP**
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TABLES

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
10-1+20-C1	715488.41	1263097.32	122.39	16	
10-1+20-L1	715518.34	1263095.75	131.89	24	
10-1+20-R2	715136.15	1262676.28	140.5	21.5	
10-1-20-R1	715464.31	1263068.35	135.63	26	
10-2+65-C1	715405.52	1263219.4	120.26	12	
10-2+65-L1	715420.88	1263224.8	131.2	18	
10-2+65-R1	715384.24	1263203.5	135.18	26	
10-2+65-R2	715088.56	1263172.72	138.6	28	
10-4+35-C1	715286.68	1263330.64	120.08	12	
11-2+25-C1	714995.91	1263535.72	120.52	9	
11-2+25-R1	714972.74	1263500.21	137.29	22.5	
11-2+25-R2	714942.41	1263393.6	138.53	22	
11-4+90-C1	714803.54	1263702.46	120.59	8	
11-5+10-C1	714806.14	1263732.07	119.098	8.5	
7-0+75-C1	716495.56	1260311.84	123.22	8	
7-0+75-L1	716517.42	1260321.57	131.05	32	
7-1+75-C1	716460.64	1260386.43	123.61	14	
7-1+75-L1	716485.56	1260404.39	132.75	32	
7-1+75-R1	716437.23	1260384.19	128.1	30	
7-2+75-L2	716499.61	1260532.21	131.02	34	
7-2+75-L3	716676.06	1260533.06	131.11	30	
7-3+75-L1	716428.08	1260596.54	132.44	34	
7-4+13-R1	716371.41	1260624.13	127.13	30	
7-4+13-R2	716342.1	1260607.34	134.1	34	
7-5+75-L1	716381.42	1260800.58	132.2	29	
7-5+75-R1	716322.73	1260781.17	129.08	28	
7-7+75-C1	716291.21	1260982.73	124.41	14	
7-7+75-L1	716319.67	1260987.2	132.33	30	
7-7+75-R1	716245.99	1260960.58	132.35	31	
8-1+05-L1	716198.1	1261307.18	133	28	
8-1+05-R1	716103.02	1261228.09	136.35	38	
8-1+05-R2	716076.8	1261245.78	138.09	32.8	
8-1+05-R3	716097.23	1261292.72	138.56	33.8	
8-1+05-R4	716084.65	1261273.48	138.43	34.7	
8-2+05-C1	716135.95	1261404.85	123.97	10	
8-3+05-C1	716097.38	1261498.56	123.69	9	
8-3+05-L1	716131.76	1261487.37	133.3	26	
8-3+05-R1	716073.55	1261462.25	129.64	20	
8-4+05-L1	716095.74	1261587.08	133.2	28	
8-4+05-R1	716038.77	1261577.29	130.12	20	
8-5+05-C1	716049.58	1261658.81	124.38	10	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
8-5+05-L1	716080.65	1261674.2	133.2	28	
8-5+05-R1	716023.68	1261680.97	131.88	23	
9-1+40-C1	715883.93	1262488.15	123.73	12	
9-1+40-L2	716011.32	1262442.54	132.8	26	
9-1+40-R1	715792.69	1262401.6	134.1	22	
9-2+60-C1	715832.76	1262585.58	123.91	9.5	
9-2+60-L1	715857.87	1262599.21	133.5	30	
9-6+60-C1	715610.07	1262885.44	122.69	13	
9-7+95-C1	715542.61	1262986.3	122.77	14	
A-01	716115.21	1261726.9	132.5	10	
B-02	716140	1261696	132.5	10	
B-03	716190	1261696	132.5	10	
B-400	716135.01	1261262.95	133.2	36	
C-03	716190	1261646	134.2	10	
C-04	716240	1261646	134	10	
C-06	716396.73	1261610.28	132	10	
CB-923B	716142.61	1261355.46	122	22	
CB-925	716090.06	1261509.1	123.75	20	
CP-01	716143.01	1261416.97	128.85	12	
D-01	716104.82	1261597.59	133.25	10	
D-02	716140	1261596	133.75	10	
D-03	716190	1261596	134.5	10	
D-05	716279.05	1261598.94	134.25	10	
E-02	716140	1261546	134	10	
E-04	716242.41	1261546.2	134.8	10	
F-02	716140	1261496	133.5	10	
F-03	716190	1261496	134.5	10	
F-05	716290	1261496	135	10	
G-04	716240	1261446	134	10	
GP-201	715984.54	1261702.97	135.1	24	
GP-202	716495.69	1261078.93	130.9	28	
GP-203C	716644.08	1261066.38	130.9	29	
GP-203D	716571.78	1260947.32	130.9	30	
GP-203F	716527.62	1260958.82	131.51	28	
GP-204	716458.53	1260861.59	130.03	9	
GP-205	716346.71	1261037.73	130.88	9	
GP-206	716383.42	1260927.15	129.65	9	
GP-206A	716392.28	1260884.58	130.87	9	
GP-206B	716350.26	1260922.27	132.26	9	
GP-210	716585.99	1261427.52	132.04	30	
GP-212	716099.15	1261812.62	133.12	12	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
GP-213	716104.01	1261890.91	132.43	25.5	
GP-214	716016.99	1261884.56	132.19	25.5	
GP-215	716185.65	1261908.39	132.65	27	
GP-221	716455.45	1261556.76	131.38	26.5	
GP-221A	716449.33	1261525.25	131.3	27.5	
GP-222	716543.37	1261551.23	131.6	29	
GP-223	716581.3	1261385.32	131.95	28	
GP-223A	716681.38	1261376.3	131.3	27	
GP-223B	716642.68	1261394.06	131.77	27	
GP-223C	716631.14	1261353.38	131.37	28	
GP-224	716568.87	1261292.74	131.95	27.5	
GP-224B	716528.45	1261246.46	132	26	
GP-224C	716620.51	1261232.14	131.9	28.5	
GP-224D	716353.83	1261319.09	131.3	27.5	
GP-224F	716642.42	1261251.6	131.7	30.5	
GP-224G	716610.6	1261190.44	131.6	28	
GP-226	716586.65	1260864.45	131.4	24.5	
GP-227	716537.73	1260741.61	129.9	24	
GP-228	716487.83	1261173.91	130.6	26	
GP-228A	716380.35	1261165.38	130.45	24.5	
GP-228B	716462.95	1261123.55	130.8	27.5	
GP-228C	716346.67	1261242.14	131.2	22.5	
GP-229	716537.77	1261640.51	131.69	29.5	
GP-301	716212.2	1261967.77	132.27	26	
GP-301A	716113.07	1262014.84	132.58	26	
GP-301B	716316.27	1261925.45	131.94	24.3	
GP-302	716529.77	1261843.03	131.58	24.7	
GP-305	716240.15	1262204.84	131.87	27	
GP-306	716047.32	1262287.63	132.3	31	
GP-307	716369.34	1260629.1	128.19	24	
GP-307A	716416.08	1260442.29	127.99	8	
GP-309	716186.09	1260909.06	134.5	32	
GP-310	716333.98	1260763.18	129.54	9	
GP-313	715844.1	1261939.14	135.61	27	
GP-316A	716765.5	1261124.42	130.4	29	
GP-401	716233.99	1261240.99	132.99	22.8	
GP-402	716238.6	1261673.33	133.3	29	
GP-404	716372.4	1261463.2	131.26	28	
GP-406	716308.17	1261377.79	133.73	28	
GP-408	716050.33	1261368.93	139.34	36	
GP-409	716050.48	1261310.01	138.63	12	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
GP-410	716032.3	1261292.4	138.92	12	
GP-411	716064.53	1261258.3	138.44	37.5	
GP-411A	715971.82	1261196.55	136.79	34	
GP-412	716012.14	1261246.5	137.49	10	
GP-413	716043.31	1261212.64	137	34	
GP-414	716002.81	1261205.77	136.83	10	
GP-415	716050.73	1261175.74	136.22	12	
GP-417	716431.74	1261121.02	130.86	26	
GP-418	716525.87	1261094.93	131.14	26	
GP-419	716487.59	1261095.09	131.15	28	
GP-421	716529.08	1261063.23	131.82	30	
GP-422	716513.32	1261040.79	131.35	30	
GP-423	716470.64	1260866.3	130.43	14	
GP-424	716461.59	1260869.48	130.47	11	
GP-425	716451.66	1260872.09	130.11	26	
GP-427	716455.24	1260851.57	130.35	15	
GP-428	716464.7	1260847.58	130.25	13	
GP-430	716466.53	1260826.53	129.98	10	
GP-431	716456.93	1260829.36	130.04	10	
GP-432	716447.69	1260833.42	130.2	10	
GP-433	716438.62	1260837.29	130.38	26	
GP-437	716458.75	1260807.47	129.77	10	
GP-440	716431.44	1260797.95	129.94	27.5	
GP-440A	716422.96	1260778.2	130.24	10	
GP-441	716434.24	1260774.16	130.07	10	
GP-441A	716426.59	1260755.27	130.34	12	
GP-442	716443.44	1260770.39	129.99	31	
GP-443	716506.81	1260915.17	130.66	28	
GP-500	716773	1261121.43	129.83	29.5	
GP-501	716587.11	1261024.28	130.49	26	
GP-501C	716680.31	1261021.8	131.01	26	
GP-501D	716685.93	1260853.58	131.68	27	
GP-501E	716689.44	1260927.5	131.19	30.2	
GP-501F	716700.53	1260890.75	131.21	31.2	
GP-501I	716716.47	1260836.85	130.68	28	
GP-501K	716679.49	1260761.96	131.28	37.5	
GP-501L	716736.1898	1260730.406	131.89	34	
GP-501M	716590.64	1260862.42	131.07	28.5	
GP-501O	716802.54	1260613.54	130.02	30	
GP-501Q	716819.26	1260561.6	130.72	34	
GP-501R	716595.06	1260670.73	133.21	34	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
GP-600	715982.56	1261286	138.37	28	
GP-601	716010.14	1261384.91	139.58	32.6	
GP-602	715921.61	1261550.59	140.72	30	
GP-603	715939.77	1261594.13	139.28	18	
GP-603A	715924.46	1261630.21	136.59	12.2	
GP-605	715972.83	1261528.82	140.66	28.8	
GP-606	715982.59	1261568.17	138.88	28	
GP-607	716011.27	1261635.16	136	25	
GP-608	716008.13	1261568.81	138.5	26.4	
GP-609	716023.39	1261532.01	138.76	28.1	
GP-610	716176.81	1261788.06	131.56	20	
GP-611	716276.2	1261738.27	131.66	28	
GP-612	716309.38	1261625.38	133.51	28	
GP-613	716082.2	1261139.33	134.31	38	
GP-614	716248.16	1260993.36	131.71	33.7	
GP-701	716513.85	1261082.58	131.73	30	
GP-703	716534.07	1261090.4	131.1	26	
GP-705	716548.82	1261076.35	131.07	26	
GP-715	716489.26	1261110.72	131.17	26	
GP-716	716704.77	1261167.82	130.6	28	
GP-717	716520.36	1261117.06	131.18	26	
GP-718	716597.27	1261163.53	131.84	28	
GP-719	716496.37	1261126.75	131.16	26	
GP-720	716566.78	1261145.12	131.05	26	
GP-721	716501.29	1261211.08	131.93	26	
GP-722	716446.63	1261145.5	130.75	28	
GP-723	716484.45	1261173	130.85	24	
GP-724	716336.92	1261238.03	131.2	22	
GP-725	716453.44	1261241.33	132.5	26	
GP-726	716367.77	1261274.77	132.09	28	
GP-727	716371.18	1261310.98	132.5	27	
GP-728	716422.14	1261291.01	132.9	28	
GP-729	716515.51	1261227.44	132.12	25	
GP-730	716540.8	1261109.15	130.8	26	
GP-731	716478.67	1261257.32	132.59	28	
GP-732	716369.57	1261715.47	131	24.5	
GP-733	716554.69	1261685.07	131.5	27	
GP-734	716432.45	1261200.46	131.21	26	
GP-735	716490.24	1261226.82	132.06	26	
GP-736	716425.9	1261263.69	132.84	28	
GP-737	716463.03	1261267.14	132.47	26	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
GP-738	716404.94	1261247.96	132.83	26	
GP-739	716543.24	1260987.36	130.87	27	
GP-740	715941.21	1261602.46	138.5	10	
GP-741	715938.47	1261588.17	139	14	
GP-742	715952.3	1261582.37	138.75	8	
GP-743	715966.14	1261576.58	138.25	10	
GP-745	715958.1	1261596.21	138	10	
GP-746	716300.44	1261799.32	131.25	24	
GP-747	716291.41	1261772.28	132	24	
GP-748	716315.18	1261782.61	132	26	
GP-749	716314.52	1261836.91	132	25	
GP-750	716326.19	1261812.07	132	26	
GP-751	716569.41	1261322.81	132.15	26	
GP-752	716534.95	1261331.27	131.96	30	
GP-753	716532.45	1261419.75	132.73	29	
GP-756	716491.6	1261440.2	131.6	26	
GP-757	716429.02	1261461.27	131.63	26	
GP-758	716613.27	1261291.72	132	28	
GP-759	716421.77	1261391.16	132.5	30	
GP-760	716529.92	1261471.28	131.96	26	
GP-761	716629.31	1261370.99	131.11	29	
GP-762	716462.22	1261529.61	131.86	29	
GP-763	716634.21	1261416.71	131.62	27	
GP-764	716525.69	1261306.06	132.19	31	
GP-765	716596.49	1261203.36	132.03	29	
GP-766	716632.36	1261251.49	131.86	28	
GP-768	716532.65	1261285.77	132.02	28	
GP-769	716537.34	1261249.13	132.15	28	
GP-770	716610.78	1261064.87	131.5	28	
GP-771	716597.34	1260988.18	130.94	26	
GP-772	716623.83	1260936.26	131.26	26	
GP-773	716088.09	1261232.88	136	39	
GP-774	716117.94	1261199.86	135	34	
GP-775	716273.57	1261709.29	131.5	28	
GP-776	716187.7	1261743.86	131.5	28	
GP-777	716104.96	1261164.4	135.7	36	
GP-778	716087.14	1261125.69	135	36	
GP-779	716140.81	1261249.18	133.4	31	
GP-780	716154.38	1261165.68	134.86	31	
GP-781	716266.62	1261884.67	133.25	29	
GP-782	716154.06	1261841.14	131.7	28	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
GP-783	716257.93	1261779.7	131.25	28	
GP-784	716283.22	1261896.39	133.5	27	
GP-785	716210.09	1261798.42	133.5	29	
GP-786	716100.76	1261856.82	132	24.5	
GP-787	716228	1261899.82	133	26	
GP-788	716224.85	1261922.68	132.8	28	
GP-789	716272.5	1261950.6	133.25	28	
GP-901	716308.29	1260820.94	133.25	31	
GP-902	716297.88	1260788.65	133.25	29	
GP-903	716295.2	1260824.84	133.5	30	
GP-904	716308.85	1260851.99	133.2	31	
GP-905	716252.77	1260971.48	133	30	
GP-906	716235.44	1261003.11	133	29	
GP-907	716322.04	1260823.32	131	26.5	
GP-908	716236.97	1260912.73	132.75	12	
GP-926	716336.47	1261746.99	136.4	28	
GP-927	716381.65	1261727.4	136.78	28	
GP-928	716426.9	1261707.65	136.5	28	
GP-929	716386.76	1261785.69	146.38	32	
GP-932	716353.31	1261799.65	139.48	30	
MW-01	716280.7	1261655.44	133.1	30	
MW-02	716140.21	1261498.73	133.83	25	
MW-03	716185.19	1261408.52	136.72	20	
MW-04	716359.34	1260987.56	130.45	20	
MW-05	716424.37	1260784.52	129.84	20	
MW-06	716396.88	1261612.06	132.3	46.5	
MW-07	716391.94	1261614.32	133.51	10.3	
MW-08	716114.34	1261730.71	133.4	30.5	
MW-09	716119.31	1261730.51	133.4	10.5	
MW-10	716223.67	1261299.52	134.4	30.5	
MW-11	716299.23	1261135.33	131.1	30.5	
MW-12	716526.11	1261080.79	131.2	30	
MW-13	716294.71	1261650.91	134.38	12	
MW-14	716109.18	1261570.85	134.27	16	
MW-15	716226.11	1261406.22	133.75	13	
MW-16	716504.5	1260961.69	131	31	
MW-17	715964.92	1261213.04	136.76	17.3	
MW-18	716071.36	1261358.19	139	20	
MW-19	716107.12	1261319.33	138.7	24	
MW-20	717449.73	1260836.84	131.5	32	
MW-201	716570	1261679.52	131.07	30	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
MW-202	716618.84	1261471.08	131.63	28	
MW-202DR	716593.05	1261451.84	131.7	29.5	
MW-203	716663.1	1261304.32	132.2	28	
MW-204	716569.06	1261300.78	131.2	95	
MW-205	716556.88	1261293.45	131.5	28.5	
MW-206	716567.06	1260956.57	130.3	29	
MW-207	716479.65	1260879.69	130.4	26	
MW-208	716429.11	1260614.54	132.63	16.8	
MW-209	716333.04	1260777.65	129.9	25.5	
MW-21	717506.99	1261709.9	129.8	30	
MW-210	715973.61	1261779.55	134.7	27	
MW-211	715666.19	1261457.62	139.6	26	
MW-212	716611.91	1261473.71	131.7	53	
MW-213	716316.72	1261415	131.9	63.75	
MW-214	716649.49	1261177.62	129	57.5	
MW-22	716648.77	1261171.12	130	26	
MW-23	716661.32	1262074.61	132.8	26	
MW-24	716870.21	1261713.57	131.1	25.5	
MW-25	716798.94	1261047.98	129.8	25	
MW-301D	716152.86	1261840.72	131.7	28.5	
MW-301S	716146.61	1261843.13	131.5	15	
MW-302	716704.77	1261167.82	130.6	28	
MW-303	716808.47	1260633.16	129.6	31.5	
MW-304	716582.58	1260646.2	131.6	40	
MW-305	716663.13	1260222.06	131.3	37	
MW-306	716385.88	1261879.61	132.08	61	
MW-306BR	716365.85	1261888.25	132	80	
MW-306D	716385.88	1261879.61	132.08	60.9	
MW-306S	716385.88	1261879.61	132.08	60.9	
MW-306SAP	716385.88	1261879.61	132.08	60.9	
MW-306TZ	716385.88	1261879.61	132.08	60.9	
MW-307	716561.15	1261682.89	130.5	52	
MW-307BR	716564.12	1261668.2	130.8	73.25	
MW-307D	716365.85	1261888.25	130.45	52	
MW-307SAP	716365.85	1261888.25	130.48	52	
MW-307TZ	716365.85	1261888.25	130.48	52	
MW-308	716565.33	1261304.4	131.2	51	
MW-308BR	716579.61	1261297.21	131.3	80.5	
MW-308SAP	716565.33	1261304.4	131.18	50.75	
MW-308TZ	716565.33	1261304.4	131.18	50.75	
MW-309	716883.42	1260770.65	130	81	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
MW-309BR	716877.75	1260757.25	129.8	108.75	
MW-309D	716883.42	1260770.65	129.97	81	
MW-309SAP	716883.42	1260770.65	129.97	81	
MW-309TZ	716883.42	1260770.65	129.97	81	
MW-310	715945.92	1261597.57	138.8	75	
MW-310BR	715932.62	1261578.34	139.7	90	
MW-310D	715945.92	1261597.57	138.79	75	
MW-310SAP	715945.91	1261597.57	138.79	75	
MW-310TZ	715945.92	1261597.57	138.79	75	
MW-311	716516.84	1261099.39	138.79	33	
MW-312	717369.71	1261449.31	129.2	42	
MW-313	717360.29	1261440.16	129.01	86	
MW-314	716358.05	1262483.67	131.8	42	
MW-315	716363.04	1262493.42	131.9	84.5	
MW-316	716556.4	1261672.28	130.71	119.8	
MW-317	716910.78	1262569.14	130.9	41	
MW-318	716913.2	1262575.47	130.94	87	
MW-319	717094.77	1263248.71	133.2	80	
MW-320	717575.52	1262723.34	132.1	76	
MW-321	716577.61	1261689.19	130.86	170.2	
MW-322	716602.5	1261661.97	130.69	86	
MW-323	716577.61	1261689.19	130.65	86	
MW-324	716610.25	1261712.23	130.83	215	
MW-325	717456.63	1262154.32	131.5	115	
MW-401D	716097.95	1261150.27	134.37	36	
MW-401S	716098.87	1261152.58	134.44	20	
MW-401SAP	716096.64	1261147.39	134.23	48	
MW-402D	716002.72	1261580.06	136.9	28	
MW-402S	716002.18	1261584.81	136.88	19	
MW-404D	716000.01	1261955.5	132.6	24	
MW-404DR	716016.54	1261932.48	133.1	21.5	
MW-405D	715970.01	1262160.22	133.3	32	
MW-407D	715658.19	1262904.32	132.42	30	
MW-408D	715546.62	1263075.16	133.46	33	
MW-408S	715549.23	1263072.21	133.65	20	
MW-500BR	716184.12	1261084.75	132.8	79	
MW-501S	716012.21	1261940.71	133	22	
MW-502D	716127.88	1261854.77	131.2	26.2	
MW-503BR	716217.9	1261694.53	131.8	76	
MW-503D	716283.95	1261677.23	131	28.5	
MW-503S	716286.82	1261676.26	131	20	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
MW-504BR	716309.13	1261655.98	131.1	80	
MW-504D	716397.03	1261401.81	130.5	26	
MW-504S	716394.78	1261396.21	130.5	16	
MW-505D	716454.45	1260670.27	128.9	28	
MW-506BR	715718.98	1260838.4	139.7	81	
MW-507BR	715967.79	1260596.78	139.1	126	
MW-508BR	716487.81	1260920.56	130.5	87	
MW-509BR	716314.32	1261380.85	131.1	76	
MW-510BR	716368.61	1261520.27	131	80	
MW-511BR	716259.94	1261760.46	131.2	76	
MW-512BR	716307.62	1261852.8	132	84	
MW-513BR	716777.571	1262246.267	132.4	82	
MW-600	716236.812	1261771.04	131.34	32	
MW-601	716438.797	1261424.727	131.1	27	
MW-602	716678.868	1260559.216	130.554	32	
MW-603	716049.442	1262193.698	130.8	27	
PZ-202	716027.75	1261488.84	140.1	25.5	
PZ-203	715818.97	1261510.23	140.6	26	
PZ-204	715763.77	1261183.45	137.8	26	
PZ-205	716070.19	1261066.39	135.1	25.5	
RW-01	716107.26	1261597.641	134.01	34	
RWPB-1	716266.75	1261318.72	131.92	28	
RWPB-2	716301.79	1261380.2	133.15	26	
RWPB-3	716238.62	1261540.56	135.58	26	
RWPB-4	716108.33	1261588.25	133.99	34	
RWSB-1	716303.14	1261635.99	133.62	28	
RWSB-2	716130.92	1261636.28	134.17	26	
SB-02	716301.97	1261347.52	132.68	4	
SB-09	716262.42	1261493.27	135.54	4	
SB-109	716309.37	1261380.23	133.4	28	
SB-110	716281.62	1261311.35	131.2	26	
SB-23	716203.45	1261594.7	135.2	12	
SB-37	716460.49	1260932.09	129.9	8	
SB-38	716422.34	1260955.47	130.2	8	
SB-40	716348.05	1260990.93	131.4	8	
SB-501	716085.84	1261597.55	132.5	30	
SB-502	716241.67	1261644.63	134.1	30	
SB-701	716273.8	1261533.97	135.25	8	
SB-702	716230.6	1261653.92	134	12	
SB-801	716568.15	1261386.54	130.9	4	
SB-802	716661.37	1261347.73	130.1	4	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
SB-803	716638.08	1261421.47	130.5	4	
SB-804	716765.27	1261309.67	130.1	4	
SB-805	716709.68	1261286.93	130.2	4	
SB-806	716754.91	1261267.29	130.4	4	
SB-807	716551.74	1261232.77	131.25	4	
SB-808	716524.97	1261167.2	129.75	4	
SB-814	716669.59	1260959.96	130.75	4	
SB-824	716699.61	1261169.68	130.15	4	
SB-911	716172.01	1261604.59	134.4	30	
SB-912	716172.26	1261565	134.42	25.42	
SB-913	716131.86	1261598.74	133.42	30	
SB-914	716126.82	1261654.98	133.19	30	
SB-915	716174.03	1261654.79	133.9	30	
SB-916	716148.15	1261628	133.92	28	
SB-917	716175.86	1261522.52	134.3	28	
SB-918	716204.64	1261438.14	133.4	28	
SB-919	716217.63	1261449.38	133.65	28	
SB-920	716196.12	1261646.84	134.21	33.92	
SB-921	716192.67	1261605.55	134.3	30	
SB-922	716235.73	1261457.03	133.57	28	
SB-923B	716142.61	1261355.46	122	22	
SB-924	716379.45	1261608.19	132.25	32	
SI-01	716115.07	1261741.9	131.5	28	
SI-02	716168.52	1261719.25	131.5	28	
SI-03	716209.74	1261702.94	131.8	28	
SI-04	716261.39	1261680.74	131.5	28	
SI-05	716318.47	1261657.64	131.5	28	
SI-06	716358.33	1261640.88	131.5	28	
SI-07	716406.35	1261621.4	131.5	28	
SI-08	716107.36	1261815.29	131.5	28	
SI-09	716159.91	1261793.09	131.5	28	
SI-10	716212.92	1261769.08	131.5	28	
SI-11	716259.12	1261750.51	131.2	28	
SI-12	716301.25	1261732.39	131.6	25	
SI-13	716368.75	1261702.94	131.5	28	
SI-14	716428.55	1261677.57	131.5	28	
SI-15	716414.96	1261588.33	131.5	25	
SI-16	716394.12	1261538.05	131.4	27	
SI-17	716372.83	1261488.67	131.4	30	
SI-18	716351.54	1261442.01	131.4	30	
SI-19	716331.15	1261393.08	131.3	28	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
SI-20	716312.12	1261351.41	131.3	30	
SI-21	716291.74	1261308.37	131.2	25	
SI-22	716272.26	1261262.62	131.2	30	
SI-23	716255.5	1261220.49	131	25	
SI-24	716450.74	1261551.18	131.38	30	
SI-25	716431.72	1261506.34	131.4	30	
SI-26	716409.52	1261458.32	131.6	28	
SI-27	716392.31	1261411.66	131.4	30	
SI-28	716371.01	1261362.28	131.3	30	
SI-29	716355.61	1261326.49	131.2	30	
TLC-01D	716178.61	1261333.12	129.41	22	
TLC-01S	716177.98	1261336.13	129.41	15	
TLC-02D	716092.89	1261542.57	130.43	26	
TLC-02S	716092.51	1261544.35	130.43	14	
TLC-03D	716065.61	1261720.47	129.48	19	
TLC-03S	716066.16	1261719.09	129.48	12	
TLC-04D	716308.88	1261008.41	129.1	30	
TLC-04S	716308.51	1261010.1	129.1	15	
TLC-05D	716395.06	1260709.89	129.8	26	
TLC-05S	716394.5	1260712.03	129.8	15	
TLC-06D	716463.75	1260409.02	129.9	30	
TLC-06S	716463.32	1260411.04	129.93	16	
TLC-07D	716035.4	1262049.5	129.66	27	
TLC-07S	716035.65	1262047.81	129.66	16	
TLC-08D	716049.72	1261927.29	128.12	28	
TLC-08S	716049.56	1261929.22	128.12	10	
TLC-09D	716015.76	1262146.84	131.11	28	
TLC-09S	716015.07	1262150.16	131.11	12	
TLC-10D	716214.46	1261251.52	129.94	28	
TLC-10S	716215.2	1261250.55	129.94	10	
TLC-11D	716362.43	1260839.39	130.28	23	
TLC-11S	716362.8	1260837.58	130.28	10	
TLC-12D	715886.04	1262462.78	131.63	32	
TLC-12S	715886.46	1262461.38	131.63	15	
TLC-13D	715642.23	1262874.38	131.7	28	
TLC-13S	715642.66	1262873.04	131.7	12	
TLC-14D	715297.54	1263343.84	128	20	
TLC-14S	715298.05	1263343.36	128.01	10	
TP-01	716735.19	1260941.02	131.95	2	
TP-02	716672.07	1260889.23	131.91	2	
TW-01	716449.102	1261360.749	131.372	30	

Table 3-2
List of Borings/Wells Used Lithologic, Stratigraphic and BPLM Models
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Bore	Easting	Northing	Elevation	TD	Comments
TW-02	716531.192	1261399.02	131.608	29	
TW-03	716469.041	1261464.541	131.014	29	
TW-04	716572.24	1261225.376	131.252	34	
TW-05	716138.732	1261153.208	134.551	24	
TW-06	716153.06	1261201.784	133.818	29	
TW-07	716059.695	1261198.855	135.969	24	
TW-08	716518.887	1261673.252	130.346	25	
VP-01	716454.684	1261355.098	131.308	6	
VP-02	716403.129	1261383.888	131.466	5.5	
VP-03	716427.211	1261308.019	132.192	6	
VP-04	716535.031	1261290.091	131.493	6	
VP-05	716150.564	1261169.252	134.391	6	
VP-06	716134.442	1261208.589	134.242	6	
VP-07	716102.836	1261165.868	134.526	6	
VP-08	716062.124	1261201.844	135.947	6	
VP-09	716105.073	1261236.58	135.641	6	
VP-10	716184.184	1261143.066	133.035	6	
VP-11	716491.842	1261504.174	131.764	6	
VP-12	716514.094	1261475.164	131.572	6	
VP-13	716464.954	1261467.04	130.74	6	
VP-14	716450.916	1261508.577	131.158	6	
WW-0+30-C1	716059.65	1261868.82	125.06	10	
WW-0+30-L1	716082.35	1261846.89	132.72	27	
WW-2+70-C1	716047.15	1262066.64	124.71	10	
WW-2+70-R1	716008.44	1262057.48	133.6	26	
WW-3+70-C1	716031.98	1262144.43	124.72	10	
WW-4+20-C1	716007.03	1262210.06	124.43	10	

Table 3-3
Statistics of Lithologic Model
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

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Solid Model Statistics
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   Model Name ............................
C:\PROJECTS\ECM\AGL\Augusta\Rockworks\Lith_20x20x2_6-22-2011_REV00.mod
   X-Minimum (western-most node) .......... 714,800.0
   X-Maximum (eastern-most node) .......... 717,600.0
   X-Spacing (east/west node spacing) ..... 20.0
   X-Nodes (east/west points) ............. 141
   Y-Minimum (southern-most node) ......... 1,260,200.0
   Y-Maximum (northern-most node) ......... 1,263,800.0
   Y-Spacing (north/south node spacing) ... 20.0
   Y-Nodes (north/south points) ........... 181
   Z-Minimum (lowest node) ................ -85.0
   Z-Maximum (highest node) ............... 151.0
   Z-Spacing (vertical) ................... 2.0
   Z-Nodes (vertical points aka layers) ... 119
   Voxel Volume ........................... 800.0
   Total Voxels ........................... 3,036,999
   Model Volume ........................... 2,429,599,200.0
   Center of Mass (x y z)................... 716,190.687315  1,262,018.609139  2.197339
   Null Voxels............................. 1956042
   Minimum node value ..................... 1.0
   Minimum node value > 0 ................. 1.0
   Maximum node value ..................... 25.0
   Mean node value ........................ 15.664622
   Sum of all node values ................. 16,932,783.0
   Non-zero nodes ......................... 1,080,957
   Non-Zero Volume ........................ 864,765,600.0
   Material Volume ........................ 135,462,264.0
```

Table 3-4
Statistics of Stratigraphic Model
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

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Solid Model Statistics
----------------------
   Model Name ............................
C:\PROJECTS\ECM\AGL\Augusta\Rockworks\Strat_20x20x2_6-22-2011_rev01.mod
   X-Minimum (western-most node) .......... 714,800.0
   X-Maximum (eastern-most node) .......... 717,600.0
   X-Spacing (east/west node spacing) ..... 20.0
   X-Nodes (east/west points) ............. 141
   Y-Minimum (southern-most node) ......... 1,260,200.0
   Y-Maximum (northern-most node) ......... 1,263,800.0
   Y-Spacing (north/south node spacing) ... 20.0
   Y-Nodes (north/south points) ........... 181
   Z-Minimum (lowest node) ................ -85.0
   Z-Maximum (highest node) ............... 151.0
   Z-Spacing (vertical) ................... 2.0
   Z-Nodes (vertical points aka layers) ... 119
   Voxel Volume ........................... 800.0
   Total Voxels ........................... 3,036,999
   Model Volume ........................... 2,429,599,200.0
   Center of Mass (x y z)................... 716,190.437795  1,262,019.107747  -0.134441
   Null Voxels............................. 1905000
   Minimum node value ..................... 1.0
   Minimum node value > 0 ................. 1.0
   Maximum node value ..................... 5.0
   Mean node value ........................ 3.666154
   Sum of all node values ................. 4,150,083.0
   Non-zero nodes ......................... 1,131,999
   Non-Zero Volume ........................ 905,599,200.0
   Material Volume ........................ 33,200,664.0
```

Table 3-6
Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Well Number	Date Installed	Well Type	Well Materials	Ground Surface Elevation (ft AMSL)	TOC Elevation (ft AMSL)	Screened Interval (ft bgs)
Alluvium Monitoring Wells						
MW-04	10/19/1985	II	PVC	130.80	132.14	3.7 - 18.7
MW-05	10/19/1985	II	PVC	130.00	131.28	4.2 - 18.6
MW-17	2/2/1992	II	SS	136.60	139.63	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	134.27	20 - 30
MW-18	2/3/1992	II	SS	139.00	142.01	14.1 - 18.5
MW-19	2/4/1992	II	SS	138.70	141.32	15.3 - 19.7
MW-21	12/8/1992	II	SS	129.80	129.32	22.3 - 27.9
MW-22	5/4/1994	II	PVC	130.60	130.46	18.3 - 22.3
MW-23	5/5/1994	II	PVC	132.80	132.6	19.4 - 23.3
MW-24	5/6/1994	II	PVC	131.10	130.97	8.3 - 12.3
MW-25	5/6/1994	II	PVC	129.80	129.59	18.9 - 22.9
MW-201	12/14/1995	II	PVC	131.10	130.76	24.2 - 28.2
MW-202DR	1/24/2007	II	PVC	131.70	131.59	24.5- 29.5
MW-203	11/14/1995	II	PVC	131.70	131.42	22.1 - 26.0
MW-205	11/22/1995	II	SS	132.20	131.68	23.3 - 28.1
MW-206	11/28/1995	II	PVC	130.90	130.72	23.9 - 27.8
MW-207	10/11/1995	II	PVC	130.40	132.95	20.6 - 24.6

Table 3-6
Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Well Number	Date Installed	Well Type	Well Materials	Ground Surface Elevation	TOC Elevation	Screened Interval
MW-210	10/10/1995	II	PVC	134.70	134.25	21.5 - 25.5
MW-211	10/11/1995	II	PVC	139.60	139.38	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	138.7	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	10/18/2000	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	130.2	22 - 32
MW-603	10/19/2010	II	PVC	130.80	130.65	17 - 27
Saprolite and Transition Zone Monitoring Wells						
MW-11	5/14/1986	II	PVC	131.10	133.48	20 - 30
MW-214	12/7/1995	II	PVC	130.60	130.34	52.6 - 56.6
MW-306SAP	11/6/1998	DDSP	PVC	132.08	131.92	30.5 - 31.5
MW-306TZ	11/6/1998	DDSP	PVC	132.08	131.93	58.5 - 59.5
MW-307SAP	11/10/1998	DDSP	PVC	130.53	130.48	30.5 - 31.5
MW-307TZ	11/10/1998	DDSP	PVC	130.53	130.48	46.5 - 47.5

Table 3-6
Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Well Number	Date Installed	Well Type	Well Materials	Ground Surface Elevation	TOC Elevation	Screened Interval
MW-309SAP	11/8/1998	DDSP	PVC	129.97	129.82	34.5 - 35.5
MW-309TZ	11/8/1998	DDSP	PVC	129.97	129.76	76.5 - 77.5
MW-310SAP	11/3/1998	DDSP	PVC	138.79	138.72	34 - 35
MW-310TZ	11/3/1998	DDSP	PVC	138.79	138.72	73 - 74
MW-311	11/20/1998	II	PVC	130.32	130.02	30 - 32
MW-312	8/2/2000	II	PVC	129.19	128.82	32 - 42
MW-314	8/7/2000	II	PVC	131.76	131.55	32 - 42
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
Bedrock Monitoring Wells						
MW-213	12/8/1995	III	PVC	131.90	131.71	58.5 - 62.5
MW-306BR	11/23/1998	III	PVC	132.03	131.81	55 - 80
MW-307BR	11/22/1998	III	PVC	130.75	130.27	48 - 73.25
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-310BR	11/25/1998	III	PVC	139.72	139.49	65 - 90
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

Table 3-6
Well Construction Summary
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia

Well Number	Date Installed	Well Type	Well Materials	Ground Surface Elevation	TOC Elevation	Screened Interval
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	OB	PVC	131.80	131.57	56 - 76
MW-504BR	9/4/2008	OB	PVC	131.1	130.91	60 - 80
MW-506BR	8/27/2008	OB	PVC	139.7	139.23	66 - 81
MW-507BR	8/25/2008	OB	PVC	139.1	138.76	106 - 125
MW-508BR	8/25/2008	OB	PVC	130.5	133.26	70 - 87
MW-509BR	9/18/2008	OB	PVC	131.1	130.63	56 - 76
MW-510BR	9/15/2008	OB	PVC	131	130.76	60 - 80
MW-511BR	9/9/2008	OB	PVC	131.2	130.82	56 - 76
MW-512BR	8/29/2008	OB	PVC	132.00	131.7	64 - 84
MW-513BR	10/20/2010	OB	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
OB - Open borehole
PVC - polyvinyl chloride
SS - stainless steel
Only active monitoring wells are included in this table.
DDSP - depth discrete sampling port

Table 3-8: Optimization of Groundwater Monitoring Network
Atlanta Gas Light Company
Former Manufactured Gas Plant Site
Augusta, Georgia
Updated 2-2012

Well ID	Hydrogeologic Unit	Screen		Location	Existing program	Proposed program February 2012	Rationale	Recommended for Abandonment
Alluvium Monitoring Wells								
MW-04	Alluvium	3.5	18.5	On-site	Decommissioned 10/20/2010	NA		
MW-05	Alluvium	3.5	18.5	On-site	Gauge and Sample	Retain current program		
MW-306S	Alluvium	8.5	9.5	Off-site	Gauge only	Retain current program		
MW-401S	Alluvium	10	20	Off-site	Gauge and Sample	Retain current program		
MW-402S	Alluvium	9	19	On-site	Gauge and Sample	Retain current program		
MW-408S	Alluvium	10	20	Off-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	The well is not proximal to the site, located approximately 1,200 feet northwest of the Northern Parcel. With the exception of arsenic in January 2010, there have been no exceedances in 2010 and 2011. There have never been exceedances for VOCs or SVOCs in this well. Recommend abandonment.	Abandon
MW-501S	Alluvium	7	12	Off-site	Gauge and Sample	Retain current program		
Galliard Formation Monitoring Wells								
MW-12	Galliard	20	30	On-site	Gauge and Sample	Retain current program		
MW-17	Galliard	12	17	On-site	Gauge Only	Retain current program		
MW-18	Galliard	14	19	On-site	Decommissioned 10/20/2010	NA		
MW-19	Galliard	15	20	On-site	Gauge and Sample	Retain current program		
MW-21	Galliard	23	28	Off-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	MW-21 is located approximately 1,050 feet east of Northern Parcel, so is not proximal to site. Exceedances are for TCE only (with exception of one-time marginal exceedance of chromium in January 2010). As TCE is not MGP-related constituent, recommend abandonment.	Abandon
MW-22	Galliard	18	22	Off-site	Gauge and Sample	Retain current program		
MW-23	Upper Galliard	20	23	Off-site	Discontinued Gauging and Sampling	Abandon	In 2009, EPD agreed to consider abandonment after 2 years. Sampling and gauging had already been discontinued. Well is sufficiently north and sidegradient to the Galliard plume, not proximal to site. Recommend abandonment.	Abandon
MW-24	Galliard	18	22	Off-site	Gauge Only	Retain current program		
MW-25	Galliard	18.5	22.5	Off-site	Gauge only	Retain current program		
MW-201	Galliard	24	28	Off-site	Decommissioned 10/20/2010	NA		
MW-202DR	Galliard	24.5	29.5	On-site	Gauge and Sample	Retain current program		
MW-203	Middle Galliard	22	26	On-site	Gauge and Sample	Retain current program		
MW-205	Galliard	23	28	On-site	Gauge and Sample	Retain current program		
MW-206	Galliard	23	28	Off-site	Gauge and Sample	Retain current program		
MW-207	Galliard	20.5	24.5	On-site	Gauge and Sample	Retain current program		
MW-210	Galliard	21.5	25.5	Off-site	Decommissioned 10/20/2010	NA		
MW-211	Galliard	20	24	Off-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	In 2009, EPD agreed to consider abandonment after 2 years of monitoring. Monitoring has been limited by access issues with property owner. Well location is 400 feet west of the Third Level Canal. No benefit to continued efforts at sampling given access issues and sidegradient location. Recommend abandonment.	Abandon
MW-303	Galliard	25.5	30.5	Off-site	Gauge and Sample	Retain current program		
MW-304	Galliard	31	36	Off-site	Gauge and Sample	Retain current program		
MW-305	Galliard	31	36		Confirmed Destroyed 10/20/2011	NA		

Table 3-8: Optimization of Groundwater Monitoring Network
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Well ID	Hydrogeologic Unit	Screen		Location	Existing program	Proposed program February 2012	Rationale	Recommended for Abandonment
MW-306D	Galliard	24.5	25.5	Off-site	Gauge and Sample	Retain current program		
MW-307D	Galliard	24.5	25.5	Off-site	Gauge and Sample	Retain current program		
MW-309D	Galliard	27.5	28.5	Off-site	Gauge only	Retain current program		
MW-310D	Galliard	27	28	On-site	Gauge Only	Retain current program		
MW-401D	Galliard	33	36	Off-site	Gauge and Sample	Retain current program		
MW-402D	Galliard	24.7	26.2	On-site	Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. However, recommend continued monitoring to provide control on west side of groundwater plume.	
MW-404DR	Galliard	16.5	21.5	Off-site	Gauge and Sample	Retain current program		
MW-407D	Galliard	20.6	30.6	Off-site	Decommissioned 10/20/2010	NA		
MW-408DR	Galliard	25	30	Off-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	No exceedances 2010 and 2011, and not proximal to the site (over 1,300 feet north-northeast of Northern Parcel). Recommend abandonment.	Abandon
MW-502D	Galliard	20	26	On-site	Gauge and Sample	Retain current program		
MW-505D	Galliard	23	28	Off-site	Gauge and Sample	Retain current program		
MW-600	Galliard	22	32	On-site	Gauge and Sample	Retain current program	New well (installed 2010)	
MW-601	Galliard	17	27	On-site	Gauge and Sample	Retain current program	New well (installed 2010)	
MW-602	Galliard	22	32	Off-site	Gauge and Sample	Retain current program	New well (installed 2010)	
MW-603	Galliard	17	27	Off-site	Gauge and Sample	Retain current program	New well (installed 2010)	
Saprolite and Transition Zone Monitoring Wells								
MW-11	Saprolite	20	30	On-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	In 2009, EPD agreed to review need for continued monitoring after 2 years. There have been no exceedances in the past 2 years. Last exceedance was for benzo(a)anthracene in February 2007. Continued monitoring not warranted, recommend abandonment.	Abandon
MW-214	Saprolite	52	56	Off-site	Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. However, due to orientation of Galliard plume in Block E, recommend retaining current program.	
MW-306SAP	Saprolite	30.5	31.5	Off-site	Gauge and Sample	Gauge only	In 2009, EPD agreed to review need for continued monitoring after 2 years. Recommend continue gauging, but discontinue sampling and analysis. With exception of marginal exceedances for nickel, there have been no exceedances since January 2004.	
MW-306TZ	Transition Zone	58.5	59.5	Off-site	Gauge and Sample	Retain current program		
MW-307SAP	Transition Zone	30.5	31.5	Off-site	Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. This well is useful for saprolite water level contours and SVOCs. Retain in program.	
MW-307TZ	Transition Zone	46.5	47.5	Off-site	Gauge and Sample	Discontinue gauging, sampling, and analysis	In 2009, EPD agreed to review need for continued monitoring after 2 years. This is likely screened in the saprolite, and the corresponding saprolite well is providing similar data. Recommend abandonment.	Abandon
MW-309SAP	Saprolite	34.5	35.5	Off-site	Discontinued Gauging and Sampling	Abandon	EPD agreed to consider abandonment after 2 years. There are no issues in the saprolite at this southeastern extent of the groundwater plume. Recommend abandonment.	Abandon
MW-309TZ	Transition Zone	76.5	77.5	Off-site	Gauge only	Discontinue gauging.	In 2009, EPD agreed to consider abandoning well after 2 years. Water levels appear onsistent with associated bedrock well. Limited benefit in continued gauging. Recommend abandonment.	Abandon
MW-310SAP	Saprolite	34	35	On-site	Gauge and Sample	Retain current program		

Table 3-8: Optimization of Groundwater Monitoring Network
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Well ID	Hydrogeologic Unit	Screen		Location	Existing program	Proposed program February 2012	Rationale	Recommended for Abandonment
MW-310TZ	Transition Zone	73	74	On-site	Gauge only	Discontinue gauging	In 2009, EPD agreed to consider abandoning well after 2 years. Water levels appear onsistent with associated bedrock well. Limited benefit in continued gauging. Recommend abandonment.	Abandon
MW-311	Saprolite	30	32	On-site	Gauge and Sample	Retain current program		
MW-312	Saprolite	32	42	Off-site	Discontinued Gauging and Sampling	Abandon	In 2009, EPD agreed to consider abandoning well after 2 years. Well is not proximate to the site (approximately 1,100 feet east of Northern Parcel). Recommend abandonment.	Abandon
MW-314	Saprolite	32	42	Off-site	Discontinued Gauging and Sampling	Abandon	In 2009, EPD agreed to consider abandoning well after 2 years. There are no issues in saprolite in this area north of the groundwater plume. Recommend abandonment.	Abandon
MW-317	Saprolite	31	41	Off-site	Discontinued Gauging and Sampling	Retain current program	In 2009, EPD agreed to consider abandoning well after 2 yrs. Recommend not abandoning well yet, as it is adjacent to bedrock well MW-318, and may be useful in evaluation other potential sources.	
MW-401SAP	Saprolite	38	48	Off-site	Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. Retain in program, well is useful for saprolite water level data, and to confirm no groundwater impacts in area southwest of groundwater plume.	
Transition Zone and Bedrock Monitoring Wells								
MW-213	Saprolite	58	62	On-site	Gauge and Sample	Retain current program		
MW-306BR	Bedrock	55	80	Off-site	Gauge and Sample	Retain current program		
MW-307BR	Bedrock	48	73	Off-site	Extraction, sample	Retain current program		
MW-308BR	Bedrock	83.7	108.7	On-site	Extraction, sample	Retain current program		
MW309BR	Bedrock	83.7	108.7	Off-site	Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-310BR	Bedrock	65	90	On-site	Gauge and Sample	Retain current program		
MW-313	Bedrock	61	86	Off-site	Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-315	Bedrock	59.5	84.5	Off-site	Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-316	Bedrock	88	119.8	Off-site	Gauge Only	Retain current program		
MW-318	Bedrock	62	87	Off-site	Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-319	Bedrock	55	80	Off-site	Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-320	Bedrock	70	76	Off-site	Gauge and Sample	Retain current program		
MW-321	Bedrock	160	170.2	Off-site	Gauge and Sample	Retain current program		
MW-322	Bedrock	49	86	Off-site	Gauge Only	Retain current program		
MW-323	Bedrock	70.5	85	Off-site	Gauge Only	Retain current program		
MW-324	Bedrock	209	215	Off-site	Gauge and Sample	Retain current program		

Table 3-8: Optimization of Groundwater Monitoring Network
Atlanta Gas Light Company
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Well ID	Hydrogeologic Unit	Screen		Location	Existing program	Proposed program February 2012	Rationale	Recommended for Abandonment
MW-325	Bedrock	95	115	Off-site	Gauge and Sample	Retain current program		
MW-500BR	Bedrock	64	79	Off-site	Gauge and Sample	Retain current program		
MW-503BR	Bedrock	56	76		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-504BR	Bedrock	60	80		Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. Well is not associated with primary or secondary fracture set and is located on Northern Parcel near MW-503BR. However, it is useful for plume control. Retain in program.	
MW-506BR	Bedrock	66	81		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-507BR	Bedrock	106	125		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-508BR	Bedrock	70	87		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-509BR	Bedrock	56	76		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-510BR	Bedrock	60	80		Gauge and Sample	Retain current program	In 2009, EPD agreed to review need for continued monitoring after 2 years. Well is not associated with primary or secondary fracture set and is located on Northern Parcel near MW-509BR. However, it is useful for plume control. Retain in program.	
MW-511BR	Bedrock	56	76		Gauge and Sample	Retain current program		
MW-512BR	Bedrock	64	84		Gauge and Sample plus geochem analysis to characterize biological activity	Retain current program		
MW-513BR	Bedrock	51.5	82		Gauge and Sample	Retain current program	New well (installed 2010)	

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

Except for gray-shaded wells (recently decommissioned), only those wells that are still considered active (e.g. not destroyed or abandoned) are included in this table.

APPENDICES

APPENDIX A

Data Used for the Site 3D Lithologic Model

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
7-1+75-R1	0	5	SM	SILTY SAND: SILTY SAND
7-1+75-R1	5	8	SM	SILTY SAND: SILTY SAND
7-1+75-R1	8	8.5	CL	SANDY CLAY: SANDY CLAY
7-1+75-R1	8.5	23.8	SM	SILTY SAND: SILTY SAND
7-1+75-R1	23.8	27.7	CL	SANDY CLAY: SANDY CLAY
7-1+75-R1	27.7	29.5	SP	GRAVELLY SAND: GRAVELLY SAND
7-1+75-R1	29.5	30	SAPROLITE	SAPROLITE: SAPROLITE
7-4+13-R2	0	7	FILL	SILTY SAND: SILTY SAND
7-4+13-R2	7	14	ML	SANDY SILT: SANDY SILT
7-4+13-R2	14	33	SP	GRAVELLY SAND: GRAVELLY SAND
7-4+13-R2	33	34	SAPROLITE	SAPROLITE: SAPROLITE
8-1+05-L1	0	9.5	FILL	SANDY SILT: WOOD, ASH, CINDER FRAGS
8-1+05-L1	9.5	11	SP	SAND: GRAVEL
8-1+05-L1	11	23.9	CL	SANDY CLAY:
8-1+05-L1	23.9	24.3	SM	SILTY SAND: GRAVEL
8-1+05-L1	24.3	24.8	CL	SANDY CLAY:
8-1+05-L1	24.8	25.8	SP	SAND:
8-1+05-L1	25.8	26	CL	GRAVELLY CLAY: GRAVELLY
8-1+05-L1	26	26.5	SP	GRAVELLY SAND: GRAVELLY
8-1+05-L1	26.5	28	SAPROLITE	SAPROLITE: GRAVELLY
8-3+05-L1	0	15.7	FILL	CLAY: CINDERS,ASH,SILT
8-3+05-L1	15.7	18	CL	CLAY: WOOD FRAGS
8-3+05-L1	18	25	CL	SILTY CLAY: ROOTS,WOOD
8-3+05-L1	25	26	SAPROLITE	SAPROLITE:
8-4+05-L1	0	1.5	FILL	SANDY SILT: SANDY SILT
8-4+05-L1	1.5	8	FILL	CINDERS: CINDERS
8-4+05-L1	8	13	ML	SILT: SILT
8-4+05-L1	13	16	CL	SILTY CLAY: SILTY CLAY
8-4+05-L1	16	24	CL	SILTY CLAY: SILTY CLAY
8-4+05-L1	24	27.3	CL	SANDY CLAY: SANDY CLAY
8-4+05-L1	27.3	28	SAPROLITE	SAPROLITE: SAPROLITE
8-5+05-L1	0	1	FILL	SILTY SAND: SILTY SAND

Bore	Depth1	Depth2	Lithology	Comment
8-5+05-L1	1	8	FILL	CLAYEY SAND: CLAYEY SAND
8-5+05-L1	8	10	FILL	GRAVEL: GRAVEL
8-5+05-L1	10	16	CL	SANDY CLAY: SANDY CLAY
8-5+05-L1	16	22.5	SP	SAND: SAND
8-5+05-L1	22.5	28	SAPROLITE	SAPROLITE: SAPROLITE
9-1+40-L2	0	1	FILL	SILTY SAND: SILTY SAND
9-1+40-L2	1	6	FILL	SAND: SAND
9-1+40-L2	6	8	CL	SANDY CLAY: SANDY CLAY
9-1+40-L2	8	11	SC	CLAYEY SAND: CLAYEY SAND
9-1+40-L2	11	18	CL	SILTY CLAY: SILTY CLAY
9-1+40-L2	18	24	PT	PEAT: PEAT
9-1+40-L2	24	24.5	CL	SILTY CLAY: SILTY CLAY
9-1+40-L2	24.5	26	SAPROLITE	SAPROLITE: SAPROLITE
9-1+40-R1	0	4	FILL	SILTY SAND: SILTY SAND
9-1+40-R1	4	9.5	SM	SILTY SAND: SILTY SAND
9-1+40-R1	9.5	12	CL	SILTY CLAY: SILTY CLAY
9-1+40-R1	12	19.6	SP	SAND: SAND
9-1+40-R1	19.6	22	SAPROLITE	SAPROLITE: SAPROLITE
9-2+60-L1	0	5	FILL	SILTY SAND: SILTY SAND
9-2+60-L1	5	21	SM	SILTY SAND: SILTY SAND
9-2+60-L1	21	24	SM	SILTY SAND: SILTY SAND
9-2+60-L1	24	29.5	ML	SANDY SILT: SANDY SILT
9-2+60-L1	29.5	30	SAPROLITE	SAPROLITE: SAPROLITE
GP-201	0	1.5	SM	SILTY SAND: SILTY SAND
GP-201	1.5	8.5	CL	SILTY CLAY: SILTY CLAY
GP-201	8.5	10.2	SC	CLAYEY SAND: CLAYEY SAND
GP-201	10.2	13	CL	SANDY CLAY: SANDY CLAY
GP-201	13	16.4	SC	CLAYEY SAND: CLAYEY SAND
GP-201	16.4	19.5	SM	SILTY SAND: SILTY SAND
GP-201	19.5	20	SP	SAND: SAND
GP-201	20	21	CL	CLAY: CLAY
GP-201	21	22.5	SP	SAND: SAND

Bore	Depth1	Depth2	Lithology	Comment
GP-201	22.5	22.8	GP	SANDY GRAVEL: SANDY GRAVEL
GP-201	22.8	24	SAPROLITE	SILT: SILT
GP-202	0	5.5	ML	SANDY SILT: SANDY SILT
GP-202	5.5	11	SC	CLAYEY SAND: CLAYEY SAND
GP-202	11	14	ML	SANDY SILT: SANDY SILT
GP-202	14	16	SM	SILTY SAND: SILTY SAND
GP-202	16	20	CL	SILTY CLAY: SILTY CLAY
GP-202	20	23.8	CL	SILTY CLAY: SILTY CLAY
GP-202	23.8	28	SP	SAND: SAND
GP-203C	0	5.5	ML	Used GP-202 for 0-20 bgs. SANDY SILT: SANDY SILT
GP-203C	5.5	11	SC	Used GP-202 for 0-20 bgs. CLAYEY SAND: CLAYEY SAND
GP-203C	11	14	ML	Used GP-202 for 0-20 bgs. SANDY SILT: SANDY SILT
GP-203C	14	16	SM	Used GP-202 for 0-20 bgs. SILTY SAND: SILTY SAND
GP-203C	16	20	CL	Used GP-202 for 0-20 bgs. SILTY CLAY: SILTY CLAY
GP-203C	20	22	SP	SAND: SAND
GP-203C	22	23.5	CL	SILTY CLAY: SILTY CLAY
GP-203C	23.5	27.5	SP	SAND: SAND
GP-203C	27.5	29	SAPROLITE	SILT: SILT
GP-203D	0	2	ML	SILT: SILT
GP-203D	2	6	SM	SILTY SAND: SILTY SAND
GP-203D	6	24	CL	CLAY: CLAY
GP-203D	24	28.5	SP	GRAVELLY SAND: GRAVELLY SAND
GP-203D	28.5	30	SAPROLITE	SILT: SILT
GP-221A	0	5	CL	SILTY CLAY: SILTY CLAY
GP-221A	5	8.9	ML	SANDY SILT: SANDY SILT
GP-221A	8.9	21	CL	CLAY: CLAY
GP-221A	21	24.8	SP	SAND: SAND
GP-221A	24.8	27.5	SAPROLITE	SILT: SILT
GP-222	0	5	TS	TS
GP-222	5	6.3	SM	SILTY SAND: SILTY SAND
GP-222	6.3	20	CL	SANDY CLAY: SANDY CLAY
GP-222	20	22.2	ML	SANDY SILT: SANDY SILT

Bore	Depth1	Depth2	Lithology	Comment
GP-222	22.2	27.5	SP	SAND: SAND
GP-222	27.5	29	SAPROLITE	SILT: SILT
GP-223A	0	7	SM	SILTY SAND: SILTY SAND
GP-223A	7	8.5	SP	SAND: SAND
GP-223A	8.5	10	ML	SANDY SILT: SANDY SILT
GP-223A	10	11	CL	CLAY: CLAY
GP-223A	11	13	SC	CLAYEY SAND: CLAYEY SAND
GP-223A	13	15	CL	SANDY CLAY: SANDY CLAY
GP-223A	15	17.5	SC	CLAYEY SAND: CLAYEY SAND
GP-223A	17.5	23	CL	CLAY: CLAY
GP-223A	23	26	SP	SAND: SAND
GP-223A	26	27	GP	GRAVEL: GRAVEL
GP-224B	0	6	SM	SILTY SAND: SILTY SAND
GP-224B	6	18.5	CL	SANDY CLAY: SANDY CLAY
GP-224B	18.5	21.5	CL	SANDY CLAY: SANDY CLAY
GP-224B	21.5	24.9	SP	SAND: SAND
GP-224B	24.9	26	SAPROLITE	SILT: SILT
GP-224D	0	24.5	CL	SANDY CLAY: SANDY CLAY
GP-224D	24.5	26	SP	SAND: SAND
GP-224D	26	27.5	SAPROLITE	SILT: SILT
GP-224F	0	5	NS	NS: NS
GP-224F	5	6	SP	SAND: SAND
GP-224F	6	15.5	ML	CLAYEY SILT: CLAYEY SILT
GP-224F	15.5	20.7	CL	SILTY CLAY: SILTY CLAY
GP-224F	20.7	27.5	SP	SAND: SAND
GP-224F	27.5	30.5	SAPROLITE	SILT: SILT
GP-224G	0	2	FILL	SAND: SAND
GP-224G	2	4.8	SM	SILTY SAND: SILTY SAND
GP-224G	4.8	5.4	ML	SANDY SILT: SANDY SILT
GP-224G	5.4	8	SM	SILTY SAND: SILTY SAND
GP-224G	8	12	ML	CLAYEY SILT: CLAYEY SILT
GP-224G	12	15	CL	SILTY CLAY: SILTY CLAY

Bore	Depth1	Depth2	Lithology	Comment
GP-224G	15	16	ML	SANDY SILT: SANDY SILT
GP-224G	16	17	CL	CLAY: CLAY
GP-224G	17	18.5	SC	CLAYEY SAND: CLAYEY SAND
GP-224G	18.5	20	CL	CLAY: CLAY
GP-224G	20	26.5	SP	SAND: SAND
GP-224G	26.5	28	SAPROLITE	CLAYEY SILT: CLAYEY SILT
GP-226	0	4	ML	SANDY SILT: SANDY SILT
GP-226	4	8	SC	CLAYEY SAND: CLAYEY SAND
GP-226	8	11	CL	SILTY CLAY: SILTY CLAY
GP-226	11	11.5	SM	SILTY SAND: SILTY SAND
GP-226	11.5	18.5	CL	SILTY CLAY: SILTY CLAY
GP-226	18.5	24	CL	SANDY CLAY: SANDY CLAY
GP-226	24	24.5	SP	SAND: SAND
GP-227	0	4	SM	SILTY SAND: SILTY SAND
GP-227	4	14	SC	CLAYEY SAND: CLAYEY SAND
GP-227	14	18.5	CL	CLAY: CLAY
GP-227	18.5	20	SC	CLAYEY SAND: CLAYEY SAND
GP-227	20	24	SP	SAND: SAND
GP-228	0	4	SM	SILTY SAND: SILTY SAND
GP-228	4	11	CL	SANDY CLAY: SANDY CLAY
GP-228	11	20	CL	CLAY: CLAY
GP-228	20	24.5	SP	SAND: SAND
GP-228	24.5	26	SAPROLITE	SILT: SILT
GP-228B	0	5	SM	SILTY SAND: SILTY SAND
GP-228B	5	11	ML	SANDY SILT: SANDY SILT
GP-228B	11	24.5	CL	SILTY CLAY: SILTY CLAY
GP-228B	24.5	26	SAPROLITE	CLAYEY SAND: CLAYEY SAND
GP-228B	26	27.5	SAPROLITE	SANDY SILT: SANDY SILT
GP-228C	0	6	SM	SILTY SAND: SILTY SAND
GP-228C	6	9	CL	SILTY CLAY: SILTY CLAY
GP-228C	9	18	CL	SANDY CLAY: SANDY CLAY
GP-228C	18	19.5	CL	SILTY CLAY: SILTY CLAY

Bore	Depth1	Depth2	Lithology	Comment
GP-228C	19.5	21	CL	SANDY CLAY: SANDY CLAY
GP-228C	21	22	SP	SAND: SAND
GP-228C	22	22.5	SAPROLITE	SILT: SILT
GP-306	0	2	FILL	GRAVEL: GRAVEL
GP-306	2	8	SM	SILTY SAND: SILTY SAND
GP-306	8	11	NR	NO RECOVERY: NO RECOVERY
GP-306	11	15	CL	SILTY CLAY: SILTY CLAY
GP-306	15	23	SM	SILTY SAND: SILTY SAND
GP-306	23	25	CL	SILTY CLAY: SILTY CLAY
GP-306	25	27	NR	NO RECOVERY: NO RECOVERY
GP-306	27	31	SAPROLITE	SILT: SILT
GP-309	0	10.5	FILL	SILTY SAND: SILTY SAND
GP-309	10.5	28.5	SP	SAND: SAND
GP-309	28.5	32	SAPROLITE	SILT: SILT
GP-316A	0	0.6	FILL	SILTY SAND: SILTY SAND
GP-316A	0.6	5.4	SP	SAND: SAND
GP-316A	5.4	17.8	CL	CLAY: CLAY
GP-316A	17.8	20.5	SC	CLAYEY SAND: CLAYEY SAND
GP-316A	20.5	26.7	SP	SAND: SAND
GP-316A	26.7	29	GP	GRAVEL: GRAVEL
GP-316A	29	29	SAPROLITE	SILT: SILT
GP-404	0	3	FILL	Dark to light brown silt with brick fragments (FILL)
GP-404	3	8.5	ML	Olive gray, dark gray and black stained, sandy SILT (ML) with BPLM odor.
GP-404	8.5	9.5	CL	Lith brown Silty sandy CLAY (CL) with BPLM staining and odor.
GP-404	9.5	13	SC	Olive gray, slightly clayey fine SAND (SC) with BPLM odor; dark gray to black staining from 9.5 to 12 feet.
GP-404	13	19	CL	Light brown to yellow orange mottled slightly sandy silty CLAY (CL) with BPLM staining and odor; liquid BPLM from 16 to 16.5 feet.
GP-404	19	25	CL	Light brown to olive gray with black staining CLAY (CL) with liquid BPLM and odor.
GP-404	25	25.5	SC	Olive gray clayey fine SAND (SC) with liquid BPLM.
GP-404	25.5	27	SP	Black medium SAND (SP) with liquid BPLM and odor.
GP-404	27	28	SAPROLITE	Light gray and foliated Saprolite with BPLM staining from 27 to 27.3 feet

Bore	Depth1	Depth2	Lithology	Comment
GP-501L	0	1	FILL	
GP-501L	1	8	SM	
GP-501L	8	14	ML	
GP-501L	14	25	CL	
GP-501L	25	27	SP	
GP-501L	27	34	SP	
GP-501L	34	34.1	SAPROLITE	Refusal
GP-611	0	2	TS	
GP-611	2	3	ML	
GP-611	3	4.1	SM	
GP-611	4.1	5.9	SM	
GP-611	5.9	8.3	SM	
GP-611	8.3	9.2	SM	
GP-611	9.2	10.3	CL	
GP-611	10.3	16	ML	
GP-611	16	16.6	SM	
GP-611	16.6	18	CL	
GP-611	18	20.8	CL	
GP-611	20.8	21.3	SW	
GP-611	21.3	22	CL	
GP-611	22	22.9	SM	
GP-611	22.9	24	CL	
GP-611	24	24.7	SM	
GP-611	24.7	26.8	SP	
GP-611	26.8	28	CL	
GP-718	0	8	NS	
GP-718	8	9	CL	
GP-718	9	10	ML	
GP-718	10	20	NS	
GP-718	20	21.5	SP	
GP-718	21.5	24	SP	
GP-718	24	26	SP	

Bore	Depth1	Depth2	Lithology	Comment
GP-718	26	28	SAPROLITE	
GP-728	0	10	NS	NO SAMPLE: No sample.
GP-728	10	11.5	CL	CLAY: Stiff CLAY (CL), dry, becoming more silty with depth, brownish yellow (10YR 6/6).
GP-728	11.5	12	CL	SILTY CLAY: Silty CLAY (CL), damp, brownish yellow (10YR 6/6).
GP-728	12	22	NS	NO SAMPLE: No sample.
GP-728	22	24	NS	NO SAMPLE: No sample, accidentally pushed through.
GP-728	24	25.4	CL	SANDY CLAY: Very soft, Sandy CLAY (CL), 15% fine grained sand, wet, dark gray (10YR 4/1).
GP-728	25.4	26	CL	CLAY: Soft CLAY (CL), 5-10% sand, occasional wood fragments, moist, BPLM odor.
GP-728	26	27	SW	SAND: Poorly sorted SAND (SW), fine to coarse quartz sand, wet, saturated with BPLM.
GP-728	27	28	SAPROLITE	SILTY CLAY: Silty CLAY (CL), foliated (SAPROLITE), bluish gray (5B 6/1).
GP-730	0	10	NS	NO SAMPLE: No sample.
GP-730	10	16	CL	SILTY CLAY: Silty CLAY (CL) with little fine sand, grading downward to Clayey SILT (ML) with 10-20% fine sand, damp, olive yellow (2.5Y 6/6).
GP-730	16	18	CL	CLAY: Very stiff CLAY (CL), dry, grayish brown (2.5Y 5/2).
GP-730	18	19.7	CL	CLAY: Very stiff CLAY (CL), dry, gray (5Y 6/1).
GP-730	19.7	19.9	CL	SANDY CLAY: Medium grained Sandy CLAY (CL), moist, light gray (5Y 7/1).
GP-730	19.9	20	SP	SAND: Well-sorted, medium grained quartz SAND (SP), with little clay, light gray (5Y 7/1).
GP-730	20	20.5	SP	SAND: Well-sorted, medium grained quartz SAND (SP), with little clay and occasional coarse sand, wet 5% heavy minerals, light gray (5Y 7/1).
GP-730	20.5	22	SW	SAND: Poorly sorted, fine to coarse SAND (SW) with little clay, wet, light gray (5Y 7/1), 5% heavy minerals.
GP-730	22	24	SW	SAND: SAA
GP-730	24	25.6	SW	SAND: SAA
GP-730	25.6	26	SAPROLITE	SILTY CLAY: Silty CLAY (CL), foliated, mottled, greensih gray (10Y 6/1)
GP-756	0	8	NS	NO SAMPLE: No sample.
GP-756	8	10	CL	SILTY CLAY: Very stiff Silty CLAY (CL), moist, mottled yellowish orange to pale brown.
GP-756	10	22	NS	NO SAMPLE: No sample.
GP-756	22	24	SW	SAND: Poorly sorted SAND (SW), predom med-grained with a few silts and pebbles, light gray, quartz-rich, naphthalene odor, no fluorescence, saturated in water.
GP-756	24	25.9	SW	SAND: SAA
GP-756	25.9	26	SAPROLITE	SAPROLITE: SAPROLITE at 25.9 ft.

Bore	Depth1	Depth2	Lithology	Comment
GP-757	0	8	NS	
GP-757	8	9	ML	
GP-757	9	10	CL	
GP-757	10	22	NS	
GP-757	22	23.5	SP	
GP-757	23.5	25.5	SP	
GP-757	25.5	26	SAPROLITE	
GP-759	0	8	NS	NO SAMPLE: No sample.
GP-759	8	10	CL	CLAY: Mottled yellowish orange to pale brown silty CLAY (CL), moist, very stiff.
GP-759	10	22	NS	NO SAMPLE: No sample.
GP-759	22	24	SW	SAND: Light gray, poorly-sorted SAND (SW), wet, predom medium quartz grains, strong hydrocarbon odor, some residual BPLM at bottom 2 cm of core, fluorescent cut.
GP-759	24	27	SW	SAND: SAA, residual BPLM on bottom 4-inches of core, strong UV fluorescence.
GP-759	27	27.5	SP	SAND: SAND (SP), saturated BPLM on top of saprolite.
GP-759	27.5	30	SAPROLITE	SAPROLITE: Mottled orange to green gray SAPROLITE.
GP-764	0	4	NS	
GP-764	4	8	MH	
GP-764	8	23	NS	
GP-764	23	23.5	SP	
GP-764	23.5	25	SP	
GP-764	25	28	SC	
GP-764	28	31	SAPROLITE	
GP-770	0	4	NS	NO SAMPLE: No sample.
GP-770	4	6.5	SM	SILTY SAND: Silty SAND (SM), fine grained sand, moist, yellowish brown (10yr 5/6).
GP-770	6.5	7.2	CL	SANDY CLAY: Sandy CLAY (CL), fine grained, stiff, moist, yellowish brown (10yr 5/6).
GP-770	7.2	7.5	SC	CLAYEY SAND: Clayey SAND (SC), fine grained, wet, dark, yellowish brown (10 yr 4/6).
GP-770	7.5	8	CL	CLAY: Stiff CLAY (CL), moist, yellowish brown (10yr 5/4).
GP-770	8	22	NS	NO SAMPLE: No sample.
GP-770	22	23.5	SC	CLAYEY SAND: Fine-grained, clayey SAND (SC), wet, strong, brown clay lens at 23.4-23.5 ft, light gray (5y 7/2).
GP-770	23.5	24	CH	SANDY CLAY: Sandy CLAY (CH), soft, wet, olive yellow (2.5y 7/3).

Bore	Depth1	Depth2	Lithology	Comment
GP-770	24	26	SW	SAND: Poorly sorted SAND (SW), little fines, quartzofeldspathic, 1% heavy minerals, pale yellow (5y 7/3) to brownish yellow(10y 6/8)
GP-770	26	28	SAPROLITE	SILTY CLAY: Silty CLAY (CL), subvertical foliatioin, significant chlorite, SAPROLITE.
GP-772	0	22	NS	
GP-772	22	22.5	CL	
GP-772	22.5	24	SC	
GP-772	24	26	SW	
GP-773	0	10	NS	NO SAMPLE: No sample.
GP-773	10	12	CH	SILTY CLAY: Silty CLAY (CH), with some fine grained sand, moist, yellowish brown (10yr 5/8).
GP-773	12	16	NS	NO SAMPLE: No sample.
GP-773	16	19.5	SW	SAND: Poorly-sorted, SAND (SW), fine to coarse quartzofeldspathic sand, four coarsening-downward sequences with occasional fine gravel, wet.
GP-773	19.5	30	NS	NO SAMPLE: No sample.
GP-773	30	32	SP	SAND: Well sorted SAND (SP), fine grained, wet, white.
GP-773	32	36	SP	SAND: Fine-grained SAND (SP), occasional medium and coarse sand grains, wet 5% heavy minerals, subrounded, white (5yr 8/1).
GP-773	36	39	SAPROLITE	CLAY: SAPROLITE, yellow (10yr 7/8), mild BPLM odor.
GP-775	0	4.5	FILL	
GP-775	4.5	7.5	CH	
GP-775	7.5	8	CH	
GP-775	8	10	CL	
GP-775	10	12	CH	
GP-775	12	14	CL	
GP-775	14	16	CH	
GP-775	16	20	CL	
GP-775	20	24	CL	
GP-775	24	27	SW	
GP-775	27	28	SAPROLITE	
GP-778	0	8	CL	CLAY: CLAY (CL), hard, occasional root material, mottled reddish yellow (7.5 yr6/8) and light olive gray (5 y6/2).

Bore	Depth1	Depth2	Lithology	Comment
GP-778	8	12	CL	CLAY: Grades from same as above to CLAY (CL), hard friable, Fe/Mn staining, light olive gray (5 y6/2).
GP-778	12	14.25	CL	CLAY: CLAY (CL), hard, mottled reddish yellow (7.5yr6/8) to light olive hray (5 y6/2), some Fe/Mn staining, thin lens of sandy clay at 13.9-14.1 ft bgs.
GP-778	14.25	16	SP	SAND: SAND (SP), fine-grained, 5% heavy minerals, wet, pale yellow (2.5 y7/4).
GP-778	16	20	NR	NO SAMPLE: No recovery.
GP-778	20	24	SP	SAND: SAND (SP), fine grained, well sorted, grades downward to poorly sorted sand, predom, medium grained, some coarse sand and fine gravel, wet, 3-10% heavy minerals, yellow (2.5y8/6).
GP-778	24	28	SW	SAND: SAND (SW), poorly sorted, fine to coarse occasional fine to coarse gravel, subangular to subrounded, Fe staining, wet 1% heavy minerals, yellow (10yr7/8).
GP-778	28	32	SW	SAND: SAND (SW), medium-grained, moderatley well-sorted, quartzofeldspathic with some fine grains, wet, 3% heavy minerals, grades downward to poorly-sorted gravelly sand, fine to coarse sand and gravel, some clay at 31/5-32 ft, yellow (2.5y8/6).
GP-778	32	36	SP	SAND: Well-sorted SAND (SP), medium-grained, little fine and coarse sand
GP-778	36	36	SAPROLITE	SAPROLITE: SAPROLITE
GP-779	0	4	CL	CLAY: Hand augered to avoid utilities.
GP-779	4	8	CL	SILTY CLAY: Silty CLAY (CL), dry, light gray (2.5y7/2).
GP-779	8	10.5	CH	SANDY CLAY: Sandy CLAY (CH), very fine sand, high plasticity, wet, light gray, (5y7/2).
GP-779	10.5	10.6	SP	SAND: Well-sorted SAND (SP), fine grained, little fines, 5% heavy minerals, wet, olive yellow (2.5y6/6).
GP-779	10.6	11	CH	SANDY CLAY: Sandy CLAY (CH), very fine sand, high plasticity, wet, light gray (5y7/2).
GP-779	11	12	SP	SAND: SAND (SP), moderately well-sorted, predom. Fine-grained, with some medium grained sand, quartzofeldspathic, 5% heavy minerals, 15% meca flakes, wet, olive yellow (2.5y6/6).
GP-779	12	16	SP	SAND: SAA, grading downward into well-sorted SAND (SP) fine-grained, 5% mica, 5% heavy minerals, wet, yellow (2.5y7/6).
GP-779	16	20	SW	SAND: SAND (SW), poorly-sorted, fine to medium grain, quatrzofeldspathic, occasional coarse sand, subangular to subrounded, wet 3% heavy minerals, yellow (10yr7/6).
GP-779	20	24	SW	SAND: SAND (SW), poorly sorted, fine to coarse, quartzofeldspathic, little fines, 1% heavy minerals, wet, subangular to subrounded, yellow (10yr7/8).

Bore	Depth1	Depth2	Lithology	Comment
GP-779	24	28	SW	SAND: SAND (SW), poorly sorted, fine to medium grained quartzofeldspathic, 3% heavy minerals, occasional SW coarse sand, grades downward to gravelly sand, fine to coarse sand and gravel, wet, pale yellow (5y7/4).
GP-779	28	28.5	CH	SANDY CLAY: Sandy CLAY (CH), moist, some very fine sand, high plasticity, white (5y8/1).
GP-779	28.5	31	SP	SAND: Well-sorted, fine grained, quartz, 3% heavy minerals, wet, white (5y8/1).
GP-779	31	31	SAPROLITE	SAPROLITE: SAPROLITE
GP-783	0	0.5	SP	
GP-783	0.5	3.9	CL	
GP-783	3.9	4	CH	
GP-783	4	8	CL	
GP-783	8	12	CL	
GP-783	12	12.5	CH	
GP-783	12.5	16	CL	
GP-783	16	20	CL	
GP-783	20	24	CL	
GP-783	24	25	CL	
GP-783	25	27	SP	
GP-783	27	28	CL	
GP-784	0	4	FILL	GRAVELLY SILT: Dry to moist Gravelly SILT with some sand, fill material, some brick fragments and coal-like material (CLM), no sample collected.
GP-784	4	8	CH	SANDY CLAY: Moist to wet, reddish-brown to dark gray, soft Sandy CLAY (CH), increasing sand and grain size downward.
GP-784	8	8.25	SC	CLAYEY SAND: Clayey SAND (SC), wet, medium-grain quartz, olive gray.
GP-784	8.25	12	CH	SANDY CLAY: Fine-grain Sandy CLAY (CH), medium soft grading to stiff clay (CL) with some silt and fine sand, mottled red-brown and pinkish-gray, moist.
GP-784	12	16	CL	CLAY: Soft to very stiff CLAY (CL), slight BPLM odor near 16 ft bgs, mottled reddish-brown to olive-gray.
GP-784	16	20	CL	CLAY: Stiff to very stiff CLAY (CL), grades from mottled reddish-brown and olive gray to light gray with occasional root fragments, no odor.
GP-784	20	23.5	CL	CLAY: SAA
GP-784	23.5	26.6	SW	SAND: (23.5 - 24 ft bgs) Poorly-sorted SAND (SW), fine to medium-grain with some quartz sand, 5-10% heavy minerals, wet, some clay, olive gray to light gray.

Bore	Depth1	Depth2	Lithology	Comment
GP-784	26.6	27	SAPROLITE	CLAY: SAPROLITE at 26.6 ft bgs.
GP-785	0	0.25	FILL	SILTY SAND: Silty SAND (SM), moist, reddish-brown, fine-grained.
GP-785	0.25	3	FILL	CLAYEY SILT: Sandy Clayey SILT with Slag-like material (SLM), coal-like material (CLM) and black dust, and brick fragments - fill material, dark brown to black.
GP-785	3	4	CL	CLAY: Stiff CLAY (CL), reddish-brown.
GP-785	4	6	CH	SANDY CLAY: Moderately soft to soft Sandy CLAY (CH), moist, fine-grained sand, occasional well-rounded fine gravel, dark brown, to olive brown, BPLM odor near 6 ft. bgs.
GP-785	6	9	CH	SANDY CLAY: Wet, fine-grained Sandy CLAY (CH), olive, few areas mottled with rust colored brown, possible sheen or staining, Photo 5, collect sample GP-785 (6-9 ft)
GP-785	9	10	CH	SANDY CLAY: SAA
GP-785	10	11.25	CL	CLAY: Stiff CLAY (CL), yellow-brown.
GP-785	11.25	12	ML	CLAYEY SILT: Clayey SILT (ML), mottled yellow brown and olive gray, moist.
GP-785	12	15	CH	CLAY: Moderately soft to stiff CLAY (CH), with some fine-grained sand, BPLM odor and minor amounts of staining, mottled yellow-brown and olive gray.
GP-785	15	18	CH	CLAY: SAA, grades into dark grey with some organic matter (roots), stiff small spots of BPLM sheen at 15-17 ft, strong BPLM odor.
GP-785	18	19	CL	SANDY CLAY: Stiff, Sandy CLAY (CL) with occasional fine gravel, medium-grained sand, predominantly quartz, mottled reddish-brown and dark gray.
GP-785	19	21	CL	CLAY: Very stiff CLAY (CL), mottled reddish-brown and dark gray, dry.
GP-785	21	24	CL	CLAY: Stiff to moderate soft CLAY (CL), gray to dark gray to greenish-gray, BPLM staining along a sandy clay lens at 22.5 ft and small pockets throughout, greensih-gray clay neat 24 ft shows possible SAPROLITE texture.
GP-785	24	27	CH	CLAY: Moderately soft to soft CLAY (CH), intermittent staining throughout, BPLM odor, gray to dark gray.
GP-785	27	27.3	SP	SAND: Moderately well-sorted SAND (SP) with occasional well rounded gravel, saturated with BPLM, strong BPLM odor.
GP-785	27.3	29	SAPROLITE	CLAYEY SILT: Claye SILT (ML) with soapy texture, greensih gray, Photos 10,11,12; BPLM not in saprolite.
GP-788	0	25	NS	
GP-788	25	27.9	SP	
GP-788	27.9	28	SAPROLITE	

Bore	Depth1	Depth2	Lithology	Comment
GP-906	0	2	FILL	ML: SILT (ML) with clay lens at 3-ft, dry, reddish brown (5YR 5/4) some gravel and coal piece at 2-ft
GP-906	2	4	CH	CL: Silty CLAY (CL), dry, high plasticity, medium soft, some Mn staining, reddish brown (5YR 5/4), some silt
GP-906	4	6	CL	CL: CLAY (CL), dry, medium plasticity, stiff, mottled light gray (10 YR 7/2) and reddish brown (%YR 5/4)
GP-906	6	8	CH	CL: CLAY (CL), dry, high plasticity, medium soft to stiff, mottled light gray (10YR 7/2) and reddish brown 5YR 5/4) some silt
GP-906	8	9	CH	CL: Same as above
GP-906	9	10	SC	SC: Clayey SAND (SC) fine-grained sand, some soft clay, mottled colors as above, dry
GP-906	10	14	SC	SC: No recovery
GP-906	14	16	SP	SP: SAND (SP) poorly graded, wet, medium grain sand lens of clay at 15-ft soft, high plasticity yellowish brown (10YR 5/6)
GP-906	16	20	SW	SW: SAND (SW) well graded, wet, mostly medium grained, some soft clay, occasional coarse quartz grains, yellowish brown (10YR 5/6)
GP-906	20	24	SW	SW: Same as above
GP-906	24	27	SW	SW: Same as above
GP-906	27	28	SP	SP: SAND (SP) Galliard formation, wet, some clay, mostly medium grained, some coarse quartz grains, very light gray (10YR 8/2)
GP-906	28	29	SP	SP: Same as above. Auger refusal at 29-ft bgs.
GP-906	29	29	SAPROLITE	SAPROLITE BASED ON REFUSAL AT 29
GP-926	0	3	FILL	SILTY SAND: ASPHALT, Silty SAND, medium grained, dark to medium brown, slightly moist, soft
GP-926	3	4	SM	SILTY SAND: Silty SAND, medium grained, dark to medium brown, slightly moist, soft
GP-926	4	5	SM	SILTY SAND: Silty SAND, fine to medium grained, orangish-brown to greenish gray, very slightly moist, 5% clay, slightly moist, soft
GP-926	5	8	SM	SILTY SAND: Silty SAND, medium grained, orange-brown to gray, slightly moist to moist at 8 ft bgs, 5% clay, slightly moist, soft
GP-926	8	9	SM	SILTY SAND: Silty SAND, medium grained, light brown to gray, saturated, soft, 5% clay, slightly moist
GP-926	9	11	CL	SANDY CLAY: Sandy CLAY, fine grained sand, light brown to gray, moist, moderately soft to slightly stiff with depth

Bore	Depth1	Depth2	Lithology	Comment
GP-926	11	12	CL	SILTY CLAY: Silty CLAY, gray to orange-brown, slightly moist, stiff, low plasticity
GP-926	12	14	CL	SANDY CLAY: Sandy CLAY, gray, sand is orane brown, dry, fine grained sand, very stiff, moderate odor
GP-926	14	16	CL	SILTY CLAY: Silty CLAY, gray, silt is orange brown, dry, very stiff, moderate odor
GP-926	16	18	CL	SILTY CLAY: Silty CLAY, gray to orange-brown (50/50), dry, very stiff, moderate odor, some mica crystals throughout
GP-926	18	20	CL	SILTY CLAY: Silty CLAY, gray to orange brown, 80% orange-brown grades to 20% orange-brown with depth, very stiff to moderately soft at 19/5 ft bgs, moist at 19.5 ft bgs.
GP-926	20	22	CL	SANDY CLAY: Sandy CLAY, wet, gray with some orange-brown, medium grained sand, soft, residual BPLM, strong odor
GP-926	22	24	CL	SANDY CLAY: Sandy CLAY, gray with little orange-brown, medium grained sand, very wet, soft, strong odor
GP-926	24	26	SP	SAND: SAND, gray, wet, well-sorted, coarse grained, residual BPLM, very strong odor
GP-926	26	28	SAPROLITE	SILTY CLAY: Silty CLAY, gray, dry, tiny black specks throughout, stiff, moderate odor, Refusal at 28 ft bgs
GP-928	0	3	SM	SILTY SAND: ASPHALT, Silty SAND, orange-brown, fine grained, slightly moist
GP-928	3	4	SM	SILTY SAND: Silty SAND, orange-brown, fine grained, slightly moist, frequent mica, 5% clay
GP-928	4	6.5	SM	SILTY SAND: Silty SAND, orange-brown, medium grained, some coarse sand, moist, frequent mica
GP-928	6.5	7	SM	SILTY SAND: Silty SAND, orange-brown, medium to coarse grained, very wet
GP-928	7	8	CL	SANDY CLAY: Sandy CLAY, orange-brown, with some gray, fine grained sand, moist, soft, low plasticity
GP-928	8	8.3	CL	SANDY CLAY: Same as above
GP-928	8.3	12	CL	SILTY CLAY: Silty CLAY, gray to orange-brown (50/50), occasional dark brown streaking at 11.5 ft bgs, low to moderate plasticity, moist to slightly moist with depth, moderately stiff, frequent mica
GP-928	12	15.5	SM	SILTY SAND: Silty SAND, tan to brown, fine grained, some clay, frequent mica flakes, saturated
GP-928	15.5	16	CL	SANDY CLAY: Sandy CLAY, brown with some orange-brown, fine grained, frequent mica flakes, moist, plastic, slightly stiff to stiff with depth

Bore	Depth1	Depth2	Lithology	Comment
GP-928	16	20	CL	SILTY CLAY: Silty CLAY, orange-brown, 10% gray, slightly moist, frequent mica, some dark brown mottling and veins throughout, very stiff
GP-928	20	22.5	CL	SANDY CLAY: Sandy CLAY, orange-brown, grades to orange-brown and gray (50/50), slightly moist, very stiff to stiff with depth, frequent mica flakes
GP-928	22.5	24	SP	SAND: SAND, grey, very moist, soft, frequent mica, 5% clay 22.5 - 23.5 ft bgs, well sorted, medium to coarse grained with depth
GP-928	24	27.5	SP	SAND: SAND, gray, wet, very coarse grained, well sorted
GP-928	27.5	28	SAPROLITE	SILTY CLAY: Silty CLAY, very pale green, soapy texture, slight laminations; Refusal at 28 ft bgs
MW-01	0	2	CL	SILTY CLAY: STIFF. Oil like substance in auger cuttings.
MW-01	2	8	CL	silty sandy clay: Stiff Brown to Orange Brown slighlty Silty Sandy Clay; strong ordor.
MW-01	8	24	CL	SILTY CLAY: Very Stiff to Stiff Gray to Orange Brown Silty Clay; Oil - like substance present. Ordor
MW-01	24	29	CL	SANDY CLAY: VERY STIFF Gray slightly Micaceous Sandy Clay; oil-like substance present.
MW-01	29	30	SAPROLITE	CLAYEY SILT: Hard tan to Gray slightly Clayey Silt - residuum. Saprolite.
MW-02	0	0.5	SP	MEDIUM SAND: Tan to Orange Medium Sand.
MW-02	0.5	12	SP	SAND: Very Loose to Loose Black Sand and Gravel; oil-like material present; strong odor.
MW-02	12	19	ML	SANDY SILT: FIRM dark gray Micaceous Sandy Silt; oil-like material present; strong odor.
MW-02	19	25	PT	PEAT: TRACE SAND AND SILT. Loose to firm highly organic material (Peat) with slight trace of Sand and Silt; strong odor.
MW-03	0	0.5	SP	SAND: Tan to Orange Medium Sand
MW-03	0.5	12	GP	SANDY GRAVEL: Loose Black Sand and Gravel; Oil-like material present; strong ordor.
MW-03	12	20	CL	SILTY CLAY: SLIGHTLY SANDY. Loose to Stiff Dark Gray to Brown slightly Sandy slightly Micaceous Silty Clay; oil like material present; strong odor.
MW-04	0	0.5	SP	SAND: Black Sand; slight odor.
MW-04	0.5	9	SM	SILTY SAND: Very soft Dark Gray, Slightly Clayey and Silty Sand, slight odor.
MW-04	9	20	CL	SILTY CLAY: Soft Dark Brown to Gray organic slightly Micaceous slightly Sandy Silty Clay becoming very organic with depth.
MW-05	0	1	TS	TOPSOIL:
MW-05	1	8	ML	SANDY SILT: ORGANIC MATERIAL
MW-05	8	20	CL	SILTY CLAY: SANDY. Soft to Stiff Dark Gray, Gray and Brown organic Micaceous Sandy Silty Clay.

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
MW-06	0	0.5	TS	TOPSOIL:
MW-06	0.5	5	SM	SILTY SAND: LOOSE BROWN. Very Loose Brown Silty Sand and Sandy Silt.
MW-06	5	9	SM	SILTY SAND: ORGANIC
MW-06	9	19	CL	SANDY CLAY: Stiff to Very Stiff Gray, Brown and Dark Brown mottled slightly Silty Sandy Clay; strong odor; staining present.
MW-06	19	24	SW-SC	CLAYEY SAND: Firm gray and brown slightly Silty Clayey Sand; strong odor; oil-like residue in sampling spoon.
MW-06	24	29	SM	SAND: Galliard. Dense Gray and White slightly Silty medium to coarse Sand; oil like residue in sampling spoon.
MW-06	29	34	SAPROLITE	CLAYEY SILT: Saprolite (Silty Clay). Very hard to hard greenish gray black and brown slightly Clayey Silt,
MW-06	34	46.5	SAPROLITE	CLAYEY SILT: Saprolite. Red Brown to Green Chloride Schist.
MW-07	0	0.3	TS	TOPSOIL:
MW-07	0.3	7.5	SM	SILTY SAND: Brown Silty Sand; Silty Sand and Gravel from 1-6.5, Dark Gray Organic Silty Sand 6.5-7.5.; odor
MW-07	7.5	10.3	CL	SANDY CLAY: Tan Sandy Clay
MW-08	0	0.2	FILL	GRAVELLY SAND: Tan Sand (FILL)
MW-08	0.2	4	FILL	GRAVELLY SAND: Black Sand and Gravel.(Fill)
MW-08	4	8	FILL	GRAVELLY SAND: Loose Black and Brown Slighlty Gravelly Silty Sand; Piece of Coal at 4.5 feet. (Fill)
MW-08	8	14	CL	SANDY CLAY: Loose Tan and Black Silty Sandy Clay; oil-like material in spoon; odor.
MW-08	14	19	ML	SILT: ORGANIC. Very soft Dark Gray Organic Slightly Micaceous Silt.
MW-08	19	24	PT	PEAT: Very Soft Dark Gray Slightly Sandy Slightly Silty Organic material (Peat).
MW-08	24	29	SP	SAND: Galliard. Loose Black and Brown Sand and Gravel; oil-like material present; strong odor.
MW-08	29	30.5	SAPROLITE	CLAYEY SILT: Saprolite. Very stiff Gray brown and Tan slightly Clayey Silt (residuum).
MW-09	0	5	FILL	GRAVELLY SAND: GRAVEL. Black Sand and Gravel (Fill).
MW-09	5	10.5	SC	CLAYEY SAND: Silty Clayey Sand
MW-10	0	4	FILL	CINDERS: GRAVEL,BLACK. Black Cinders and Gravel. Boring advanced in old coal storage site.
MW-10	4	15.5	FILL	GRAVELLY SAND: Black cinders, Gravel and Sand. Black fragments in 10 foot sample. Oil-like material present in 10 and 15 foot samples.

Bore	Depth1	Depth2	Lithology	Comment
MW-10	15.5	24	ML	CLAYEY SILT: Wood with trace of dark Gray Clayey Silt; oil-like material present.
MW-10	24	29	ML	SANDY SILT: Firm Dark Gray organic, slightly Micaceous Slightly Clayey Sandy Silt.
MW-10	29	30.5	SAPROLITE	CLAYEY SANDY SILT: Saprolite. Very Stiff Tan and White Slightly Clayey Sandy Silt (Residuum).
MW-11	0	2	FILL	TOPSOIL:
MW-11	2	4	FILL	GRAVELLY SAND: GRAVEL, BLACK. Black Sand and Gravel with Bricks (Fill)
MW-11	4	5	SP	SAND: Loose Tan Fine Sand
MW-11	5	9	SM	SILTY SAND: Loose Gray Micaceous Silty Sand.
MW-11	9	24	CL	SILTY CLAY: Cvery Soft to Soft Dark Gray Organic Silty Clay and Clay Silt; Slightly Sandy in 20 foot sample.
MW-11	24	30.5	SAPROLITE	CLAYEY SILT: Saprolite. Very Stiff to Hard Tan and Organic Slightly Clayey Silt (Residuum).
MW-12	0	0.7	TS	TOPSOIL:
MW-12	0.7	4	SP	SAND: FINE BROWN
MW-12	4	14	ML	SANDY SILT: Firm Brown Slightly Micaceous Silty Fine Sand and Fine Sandy Silt 4-9'; Stiff Brown and Orange Brown slightly Micaceous Fine Sandy Silt.
MW-12	14	24	CL	SILTY CLAY: Very stiff Brown to Dark Gray slightly Micaceous Silty Clay and Clayey Silt.
MW-12	24	29	SP	SAND: Galliard. WHITE DENSE FINE. Dense White and Gray slightly Gravelly Fine to Medium Sand; slight odor.
MW-12	29	30	SAPROLITE	CLAYEY SILT: Saprolite. Hard Brown and Tan slightly Micaceous Slightly Clayey Silt (Residuum).
MW-13	0	1	SP	SAND: Fine Brown Sand.
MW-13	1	4.5	SM	SILTY SAND:
MW-13	4.5	8	CL	SILTY CLAY:
MW-13	8	12	SM	SILTY SAND: Gray Slightly Clayey Silty Sand and Sandy Silt; oil-like material from 11-12 feet.
MW-14	0	2	FILL	SILTY CLAY: SOFT,BROWN Silty Clay (Fill)
MW-14	2	16	FILL	CINDERS: BLACK. Very soft to soft, black cinders and By-Product material (Fill)
MW-15	0	4.8	FILL	CINDERS: Hard, black slightly Silty By-Product (Fill) 0-2'; Black Cinders with Coal and wood fragments (Fill) 2-4.8'.
MW-15	4.8	5.7	FILL	CLAYEY SILT: BLACK CINDERS. Soft, light gray to black to White, Clayey Silt with black Cinders and wood fragments (Fill).

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
MW-15	5.7	8	FILL	CINDERS: Medium red, laminar, fused ash (Fill) with strong odor 5.7-6; Black Silty Cinders (Fill) with strong odor 6-8'.
MW-15	8	13	CL	SILTY CLAY: Very soft, light green to light gray micaceous Silty Clay (CL).
MW-16	0	2	SC	SILTY SAND: Very Loose, light orange, micaceous, fine Clayey Silty Sand (SC)
MW-16	2	4	ML	CLAYEY SILT: Very Soft, light brown, micaceous, fine, Sandy Clayey Silt (ML)
MW-16	4	6	SM	SILTY SAND: Very Loose, light brown to tan, mottled, Clayey Silty Sand (SM)
MW-16	6	12	CL	SILTY CLAY: Firm, light tan to gray slightly micaceous Silty Clay (CL).
MW-16	12	16	MH	SILT: ORGANIC. Firm to Stiff, light tan to gray Clayey Silt with Dark Brown, peat-like organic material (MH).
MW-16	16	23	CL	CLAY: Dark Gray, iron stained, slightly Silty, lean, friable Clay (CL).
MW-16	23	25.8	MH	SILT: Firm, dark brown, micaceous, Clayey Silt (MH)
MW-16	25.8	31	SC	CLAYEY SAND: WET. Firm, light gray to white, coarse, Clayey Sand to small Gravel (GC). Very Wet. (Galliard)
MW-17	0	0.3	FILL	SAND: MED TO COARSE. Loose, brown to orange, medium to coarse Sand (Fill)
MW-17	0.3	10	CL	SILTY CLAY: Firm to very stiff, brown to gray, micaceous Silty Clay (CL).
MW-17	10	17.3	SP	SAND: SOME GRAVEL. Loose to firm, brown to gray, medium to coarse Sand with some Gravel (SP).
MW-18	0	7	FILL	SILTY CLAY: SOME CINDERS AND BRICK. Firm, brown to orange, micaceous Sandy Silty Clay with cinder and brick fragments (Fill).
MW-18	7	13.5	CL	SILTY CLAY: Very Stiff, gray, micaceous Silty Clay (CL).
MW-18	13.5	20	SW	SAND: GRAVELLY. Firm, brown to gray, medium to coarse Sand with some Gravel (SW).
MW-19	0	3	FILL	SILTY CLAY: BRICK FRAGS. Soft, brown, Sandy Silty Clay with birck fragments (Fill).
MW-19	3	8	FILL	SILTY SAND: BRICK FRAGS. Very loose, brown to black, Silty Sand with brick fragments (Fill).
MW-19	8	9.8	FILL	SILTY CLAY: CINDERS. Soft brown to gray, micaceous, Silty Clay with cinders 9Fill).
MW-19	9.8	12	CL	SILTY CLAY: SANDY. Stiff, gray to green, micaceous, slightly Sandy, Silty Clay (CL) with strong By-Product odor.
MW-19	12	14	ML	SANDY SILT: Stiff gray to green, micaceous, fine Sandy Silt (SM)
MW-19	14	16	SM	SILTY SAND: Loose green, brown Silty Fine Sand (SM).
MW-19	16	24	SP	SAND: MED TO COARSE. Firm, brown, medium to corase Sand with little Gravel (SP).
MW-20	0	6.5	FILL	SILTY SANDY CLAY: Brown, dark brown and reddish brown Silty Sandy Clay with Gravel, brick fragments and roots (Fill).

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
MW-20	6.5	8	FILL	SAND: FINE TO MED. Reddish brown Clayey fine to medium Sand (Fill).
MW-20	8	11	CL	SILTY CLAY: SOME ORGANICS. Soft Reddish brown and brown slightly Sandy Silty Clay with roots (CL).
MW-20	11	12	PT	PEAT: ORGANIC; PEAT, ROOTS, AND GRAVEL. Soft dark brown and brown organic Silty Clay with peat, roots and Gravel (OH)
MW-20	12	20.8	CL	CLAY: SLIGHTLY SILTY. Firm to very stiff reddish brown and gray mottled slightly micaceous slightly Silty Clay (CL).
MW-20	20.8	26	SM	SAND: Firm reddish brown slightly Silty fine to medium Sand (SM) wet at 20.75.
MW-20	26	29.3	SM	SAND: Firm to dense reddish brown and orange brown Silty fine to coarse Sand (SM)
MW-20	29.3	32	SW	SAND: Dense white slightly Silty medium to coarse Sand. Trace of clay at 29.9 ft (SM).
MW-201	0	7.5	SM	SILTY SAND:
MW-201	7.5	25	CL	SANDY CLAY:
MW-201	25	30	SP	SAND: Loose yellowish orange medium to coarse Sand with trace of Silt and trace Gravel (SP) (Galliard)
MW-202	0	7.5	SP-SM	SAND: Loose light brown slightly Silty fine to medium Sand (SM-SP)
MW-202	7.5	14.5	CL	SANDY CLAY:
MW-202	14.5	24.5	CL	SILTY CLAY:
MW-202	24.5	28	SP	SAND: Firm light gray medium Sand (SP) (Galliard)
MW-202DR	0	5	FILL	: No Sample Collected
MW-202DR	5	7.7	FILL	: FILL: orange/brown, fine - medium grained, subangular, loose, moist.
MW-202DR	7.7	9.5	SC	: Clayey SAND: gray/brown, fine - medium grained, subangular, medium dense, moist, graded into-
MW-202DR	9.5	10	CL	: Sandy CLAY: light brown, medium stiff, moderate plasticity, moist.
MW-202DR	10	15	CL	: SAA: light brown/orange, stiff, low plasticity, moist, graded into-
MW-202DR	15	20	CL	: CLAY: dark brown/orange graded into gray/orange, very stiff, low plasticity, moist, some clay, graded into-
MW-202DR	20	23	CL	: Sandy CLAY: orange/brown, very stiff, nonplastic, moist, slight HCL odor.
MW-202DR	23	24.2	CL	: SAA: gray/orange
MW-202DR	24.2	29.5	SP	: SAND: white/tan, medium - coarse grained, subangular, loose, wet, slight HCL odor.
MW-202DR	29.5	29.5	SAPROLITE	: SAPROLITE
MW-203	0	5.5	SM	SILTY SAND: Loose mottled light brown yellowish orange and light gray slightly micaceous Silty fine to medium Sand (SM).

Bore	Depth1	Depth2	Lithology	Comment
MW-203	5.5	7.5	SP	SAND: Loose light brown slightly micaceous fine to medium Sand with trace of silt (SP)
MW-203	7.5	12.5	SM	SILTY SAND: Loose mottled yellowish orange and light gray slightly micaceous slightly Clayey Silty fine Sand to Sandy Silt (SM-ML).
MW-203	12.5	20.5	CL	CLAY: firm mottled light gray olive gray and light brown slightly Sandy Clay (CL) with roots and wood fragments 12.5-17.5'; firm mottled yellowish orange and light gray slightly Sandy Clay (CL)
MW-203	20.5	21	SC	CLAYEY SAND:
MW-203	21	28	SP	SAND: Firm yellowish orange and light gray fine to medium Sand (SP) (Galliard).
MW-204	0	1.5	SM	SILTY SAND
MW-204	1.5	4	ML	SANDY SILT
MW-204	4	8	ML	CLAYEY SILT: Light gray to light brown clayey SILT (ML) with trace finer sand
MW-204	8	14	CL	SILTY CLAY
MW-204	14	20	CL	CLAY: Light brown to olive gray mottled slightly silty CLAY (CL)
MW-204	20	24.5	SP	SAND
MW-204	24.5	27.1	SP	SAND
MW-204	27.1	27.7	SP	Olive gray fine to medium slightly silty SAND (SP) saturated with BPLM (Galliard)
MW-204	27.7	69	SAPROLITE	SAPROLITE: 7 7/8-inch Tricone Bit Refusal at 58.8 ft
MW-204	69	95	GNEISS	GNEISS: Amphibolite Gneiss (Bedrock). 5 7/8-inch Tricone Bit Refusal AT 69 FT BGS
MW-205	0	1.5	SM	SILTY SAND
MW-205	1.5	4	ML	SANDY SILT
MW-205	4	8	ML	CLAYEY SILT: Light gray to light brown clayey SILT (ML) with trace finer sand
MW-205	8	14	CL	SILTY CLAY
MW-205	14	20	CL	CLAY: Light brown to olive gray mottled slightly silty CLAY (CL)
MW-205	20	24.5	SP	SAND
MW-205	24.5	27.1	SP	SAND
MW-205	27.1	28.5	SP	Olive gray fine to medium slightly silty SAND (SP) saturated with BPLM (Galliard)
MW-206	0	7.9	SM	SILTY SAND: Loose light brown slightly micaceous to micaceous slightly Silty to Silty fine to medium Sand (SM/SP)
MW-206	7.9	12.5	SC	CLAYEY SILTY SAND: Mottled loose yellow orange and slightly gray micaceous Clayey Silty fine Sand (SC).
MW-206	12.5	24.9	CL	SANDY SILTY CLAY: Stiff light gray to light brown to yellowish orange slightly Sandy Silty Clay (CL).

Bore	Depth1	Depth2	Lithology	Comment
MW-206	24.9	29	SP	SAND:Loose light gray vary Gravelly fine to medium Sand with trace of Silt (SP-GP) (Galliard)
MW-207	0	4	FILL	SILTY SAND: Loose orange to black to tan Silty coarse to fine Sand (Fill) 0-1.5 ft; Loose dark gray to black Silty fine Sand with wood and brick fragments (Fill) 1.5-4.0 ft.
MW-207	4	5.8	ML	SANDY SILT: Firm dark gray fine Sandy Silt (ML)
MW-207	5.8	7	CL	SANDY CLAY: Stiff gray green fine Sandy Clay (CL)
MW-207	7	9	CH	CLAY: Very soft gray green Clay (CH).
MW-207	9	9.5	CL	SANDY CLAY: Gray Sandy Clay (CL)
MW-207	9.5	17	PT	PEAT: Very soft gray slightly Sandy Clay (OL) with organics (wood fragments, peat).
MW-207	17	21.5	CL	SILTY CLAY: Soft to very soft gray green slightly Sandy Silty Clay (CL) with some organics.
MW-207	21.5	22.5	SM	SILTY SAND:
MW-207	22.5	25	SP	SAND: Very firm gray-green medium to fine Sand (SP) with some fine Gravel (Galliard).
MW-207	25	26	SAPROLITE	SAPROLITE: Very stiff white micaceous Silt (ML) Saprolite texture. (Saprolite)
MW-208	0	1	FILL	FILL: Red-orange Sandy Silt (Fill)
MW-208	1	10	FILL	SAND: Very loose black coarse to fine Sand with angular fine gravel and some organics (Fill).
MW-208	10	16.8	CL	SILTY CLAY: Firm gray Sandy Silty Clay.
MW-209	0	7.5	FILL	SANDY SILT: BRICK, CONCRETE, AND WOOD FRAGMENTS; CREOSOTE-LIKE ODOR (Fill)
MW-209	7.5	10	ML	SANDY SILT: Firm greenish-gray micaceous Sandy Silt (ML)
MW-209	10	14.5	SM	SILTY SAND: Loose yellowish-orange to light brown micaceous Silty fine yto medium Sand (SM).
MW-209	14.5	15	CL	SANDY CLAY:
MW-209	15	19.8	SP	SAND: Silty fine to coarse Sand (SP).
MW-209	19.8	20.6	ML	CLAYEY SILT:
MW-209	20.6	21	SW	SAND: Firm white Clayey fine to coarse Sand with Gravel (SP) (Galliard).
MW-209	21	25.1	SP	SAND: Firm light tan fine to medium Sand (SP) (Galliard)
MW-209	25.1	25.5	SC	CLAYEY SAND: (Galliard)
MW-209	25.2	25.2	SP	SAND: (Galliard)
MW-21	0	2.5	FILL	TOPSOIL:
MW-21	2.5	8	FILL	SANDY CLAY: CLAY, BRICK. Brown and dark brown Clayey Silty Sand and Clay (Fill). Brick fragments at 4.0 ft.
MW-21	8	11	SM	SILTY SAND: Loose brown Silty fine to medium Sand (SM). Wet at 8.0 ft.

Bore	Depth1	Depth2	Lithology	Comment
MW-21	11	20.8	CL	SILTY CLAY: SANDY. Soft to very stiff brown, tan and gray mottled slightly Sandy Silty Clay (CL). Wet at 18.0 ft.
MW-21	20.8	29.4	SM	SAND: TRACE GRAVEL. Loose to firm orange brown slightly Silty fine to coarse Sand with trace of Gravel (SM)
MW-21	29.4	29.8	SM	SILTY SAND: Firm reddish brown, brown and black micaceous Silty Sand (SM).
MW-21	29.8	30	SAPROLITE	SILT: Green and gray micaceous Silt (ML). Possibly chlorite schist. (Saprolite).
MW-210	0	4	SM	SILTY SAND:
MW-210	4	9	ML	SILT:
MW-210	9	17.5	SW	SAND: Loose to firm orange-brown coarse to fine Sand (SW).
MW-210	17.5	23	SP	GRAVELLY SAND: Loose to firm orange-brown coarse to medium Sand with subangular quartz Gravel (SP) (Galliard).
MW-210	23	27	SAPROLITE	SILT: Hard white tan and pink micaceous Silt (ML) with saprolite texture (Saprolite)
MW-211	0	2.5	FILL	SILTY SAND: Brown Silty fine Sand with brick fragments (Fill).
MW-211	2.5	7.5	SM	SILTY SAND: Very firm orange-brown Silty medium to fine Sand (SM).
MW-211	7.5	12.5	ML	SANDY SILT:
MW-211	12.5	17.5	SP	SAND:
MW-211	17.5	22.5	SW	SAND: Firm tan slightly micaceous coarse to fine Sand (SP) (Galliard).
MW-211	22.5	26	SW	GRAVELLY SAND: Very firm tan coarse to fine Sand (SP) with fine rounded to subangular quartz Gravel (Galliard).
MW-212	0	6.5	SM	SILTY SAND
MW-212	6.5	23.2	CL	SANDY CLAY
MW-212	23.2	28	SP	SAND
MW-212	28	30	ML	SILT
MW-212	30	53	SAPROLITE	SAPROLITE: Partially weathered rock (Saprolite). Tricone refusal boring terminated at 53.0 ft
MW-212	53	53	BEDROCK	BEDROCK BASED ON TRICONE REFUSAL
MW-213	0	6	SM	SILTY SAND
MW-213	6	18.5	CL	SANDY CLAY
MW-213	18.5	21.5	CL	SANDY CLAY
MW-213	21.5	24.9	SP	SAND
MW-213	24.9	30	SAPROLITE	SANDY SILT: Very stiff light gray slightly Sandy Silt (ML) with saprolite texture (Saprolite).

Bore	Depth1	Depth2	Lithology	Comment
MW-213	30	63.75	SAPROLITE	SAPROLITE: Partially weathered rock (Saprolite). Tricone refusal boring terminated at 63.75 ft
MW-213	63.75	63.75	BEDROCK	Bedrock: BASED ON TRICONE REFUSAL AT 63.75
MW-214	0	7.5	SM	SILTY SAND
MW-214	7.5	17.5	CL	SILTY CLAY
MW-214	17.5	22.5	SM	SILTY SAND
MW-214	22.5	30	SP	SAND
MW-214	30	57.5	SAPROLITE	PART WEATHERED ROCK: Partially weathered rock (Saprolite). Tricone refusal boring terminated at 57.5 ft
MW-214	57.5	57.5	BEDROCK	Bedrock: BASED ON TRICONE REFUSAL AT 57.5
MW-22	0	7.5	SM	SILTY SAND: Yellowish-orange very slightly micaceous Silty fine-medium Sand (SM)
MW-22	7.5	17.5	CL	SILTY CLAY: Mottled light gray and light brown slightly Sandy Silty Clay (CL).
MW-22	17.5	22.5	SM	SILTY SAND: Light brown Silty medium Sand (SM).
MW-22	22.5	26	SP	SAND: Light gray medium Sand with well rounded quartz Gravel (SP) (Galliard).
MW-23	0	10	FILL	SAND: Light brown slightly Silty medium Sand (Fill).
MW-23	10	20	CL	SANDY CLAY: Mottled light gray and light brown slightly micaceous very Sandy to slightly sandy Clay (CL)
MW-23	20	25	SC	CLAYEY SAND: Yellowish orange and light gray very slightly Clayey medium Sand (SC)
MW-23	25	25.5	SAPROLITE	SILTY CLAY: Dark gray slightly micaceous slightly Sandy Clay (CL) (Saprolite)
MW-23	25.5	26	SAPROLITE	Dark gray to dark green slightly micaceous Silty medium-fine Sand - possibly weathered chlorite schist (SM) (Saprolite).
MW-24	0	6	FILL	SAND: Light brown micaceous Silty fine Sand (Fill).
MW-24	6	15	FILL	CLAYEY SAND: BRICK FRAGS. Light brown and light gray slightly micaceous Clayey Sand with brick fragments (Fill).
MW-24	15	18	CL	SANDY CLAY: Mottled light brown and light gray sllightly micaceous fine Sandy Clay (CL) 15-18'.
MW-24	18	20.5	CL	SANDY CLAY: light brown to orange brown sllightly micaceous Sandy Clay (CL) 18-20.5'.
MW-24	20.5	25	SW	SAND: Very light gray/offwhite and yellowish orange fine to medium Sand (SW) (Galliard).
MW-24	25	25.5	SAPROLITE	SILTY CLAY: Brown slightly micaceous Sandy Clay (CL) overlying residuum (Schist) (Saprolite).
MW-25	0	6	SM	SILTY SAND: Light brown micaceous Silty fine Sand (SM)

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Bore	Depth1	Depth2	Lithology	Comment
MW-25	6	20.4	CL	SANDY CLAY: Light gray yellow-orange slightly micaceous very fine Sandy Clay (CL).
MW-25	20.4	25	SP	SAND: Light gray fine to medium Sand (SM) (Galliard).
MW-301D	0	4	FILL	Silty Sand: Red-brown to yellow-brown with intermittent 3-5 ft black zones containing coal fragments and coal dust (FILL)
MW-301D	4	8	CL	Sandy Clay: Wet, soft to very soft, thin zones of clayey sand at 6 ft, clay becomes stiff near 8 ft, olive gray
MW-301D	8	12.5	CL	Clay: Soft to medium soft, moist, dark gray grading downward to yellow, sig. BPLM residual at 9.5 ft, staining and sheen at 10 ft, HC odor
MW-301D	12.5	13.2	SC	Clayey Sand: Fine to medium-grained, mod. Well-sorted, sheen, brown, wet
MW-301D	13.2	16	CL	Clay: Stiff to medium soft, some roots, moist brown to yellow brown
MW-301D	16	20	CL	Clay: Soft to stiff, moist, olive gray to mottled olive and reddish brown, HCV odor in sandy clay lens at 16.5-17 ft
MW-301D	20	24.75	CL	Sandy Clay: Stiff to medium soft, fine-to med-grain sand, moist, large wood fragments, gray to greenish gray
MW-301D	24.75	26.9	SP	Sand: Fine-to-medium-grained, mod. Well-sorted, wet, lt. Gray
MW-301D	26.9	28.5	SAPROLITE	Saprolite: Extremely weathered, chloritized
MW-301S	0	4	FILL	Silty Sand: Red-brown to yellow-brown with intermittent 3-5 ft black zones containing coal fragments and coal dust (FILL)
MW-301S	4	8	CL	Sandy Clay: Wet, soft to very soft, thin zones of clayey sand at 6 ft, clay becomes stiff near 8 ft, olive gray
MW-301S	8	12.5	CL	Clay: Soft to medium soft, moist, dark gray grading downward to yellow, sig. BPLM residual at 9.5 ft, staining and sheen at 10 ft, HC odor
MW-301S	12.5	13.2	SC	Clayey Sand: Fine-to medium-grained, mod. Well-sorted, sheen, brown, wet
MW-301S	13.2	15	CL	Clay: stiff to medium soft, some roots, moist, brown to yellow brown
MW-302	22	27	SP	SAND: medium grained, poorly sorted, light gray to white, Galliard
MW-302	27	28	SAPROLITE	SILTY CLAY:
MW-303	0	3	FILL	FILL: FILL, assorted concrete, rock and brick, fragments, light brown to orange
MW-303	3	9	SP	SAND: SAND, fine to medium grained, well sorted, some mascovite, some silt, iron stained, (dry)
MW-303	9	15	SC	CLAYEY SAND: Grades to a CLAYEY SAND, mottled gray and light brown, stiff, root basis in place.

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
MW-303	15	18	CL	SILTY CLAY: Grades to clay, silty, greenish to yellow orange, some root casts visible, contact with overlaying sand is gradational, stiff, minor sand.
MW-303	18	22	SM	SILTY SAND: Grades to SAND, silty, clayey, well sorted, fine grained greenish gray some light brown mottling
MW-303	22	23.75	ML	CLAYEY SILT: greenish gray to brown
MW-303	23.75	30.5	SP	SAND: medium grained, poorly sorted, wet, light gray,subangular, quartz gravel 5-10%. Kaolinite starting at 25.5 ft, with increasing Kaolinite content, color becomes white
MW-303	30.5	31.5	SAPROLITE	SILTY CLAY: Erosional noncomformity. SAPROLITE
MW-304	0	2	FILL	SILT: FILL, Dark gray grading into yellow, organic rich silt, abundant roots, brick fragments
MW-304	2	5	SM	SILTY SAND: Yellowish, orange, silty sand (dry) fine grained
MW-304	5	8.5	CL	SILTY CLAY: CLAY-silty sand, mottled gray brown
MW-304	8.5	9.5	SP	SAND: medium grained, light gray, wet
MW-304	9.5	11.5	SM	SILTY SAND: SILTY fine SAND, yellowish orange (iron stained), (dry), grading into clayey silty sand
MW-304	11.5	12.5	SP	SAND: medium grained with slag and brick fragments
MW-304	12.5	13.5	SM	SILTY SAND: SILTY fine sand, yellowish orange (dry)
MW-304	13.5	25	CL	CLAY: CLAY-greenish gray, stiff, sand lens 14.5-14.8. At 20 ft, CLAY changes color to dark brown, mottled with iron staining
MW-304	25	32	SP	SAND: SAND-medium grained, white quartzite, subangular, wet. Quartzite rock fragments (Galliard formation)
MW-304	32	34	SP	GRAVELLY SAND: Gravely SAND, same as above, quartzite pebbles (Galliard)
MW-304	34	36	SP	SAND: SAND-medium grained, white, same as above (Galliard)
MW-304	36	40	SAPROLITE	SILTY CLAY: Saprolite. Erosional noncomformity
MW-305	0	14	FILL	FILL: FILL, concrete, wood, brick. SILTY SAND, road gravel 9.5 ft-10 ft solid brick-may be foundation
MW-305	14	23	SC	CLAYEY SAND: Clayey fine SAND, greenish gray, some clay
MW-305	23	26	CL	SILTY CLAY: CLAY, silty, gray, very stiff
MW-305	26	27	ML	ORGANIC SILT: Organic SILT with 5% sand grains, olive gray
MW-305	27	37	SW	SAND: SAND, fine medium to coarse grained, quartz gravels at base, light gray, subangular, poorly sorted. Sand appears coated with GALLIARD formation.
MW-305	37	37	SAPROLITE	SILTY CLAY:
MW-306	0	5.5	FILL	FILL: FILL, gravel, bricks, rubble, sand,silt, glass, cheetos bag

Bore	Depth1	Depth2	Lithology	Comment
MW-306	5.5	10	SP	SAND: SAND, fine to medium grained, yellowish orange, iron stained, well sorted, masconite throughout
MW-306	10	14	SC	CLAYEY SAND: Grades to a clayey SAND, mottled orange to gray. (dry)
MW-306	14	21	CL	CLAY: CLAY, very stiff, mottled greenish gray-orange brown. 20 ft Grades into SILTY CLAY with minor sand, stiff
MW-306	21	24	SC	CLAYEY SAND: CLAYEY SAND with silt, greenish gray, orange-brown mottled, grade to galliard at 22 ft
MW-306	24	26	SP	SAND: SAND, medium grained, light gray, well sorted, wet, 5% quartz gravel at base. Erosional nonconformity
MW-306	26	53	SAPROLITE	CLAY: SAPROLITE completely altered to clay, Kaolinite, relic texture still appearant, reddish brown to white to orange brown. At 37 ft Color chane to gray, texture looks like rock, may have been chloritic phyllite. Chlorite veins in place, small quartz
MW-306	53	60.9	PHYLLITE	CLAY: Relatively unweathered portions of rock with clay filled sections in between. Rock appears to be chloritic phyllite with pyrite. In places, veins of rich abundant clay filled fractures. Dry
MW-306BR	0	5.5	FILL	: FILL, gravel, bricks, rubble, sand,silt, glass, cheetos bag
MW-306BR	5.5	10	SP	SAND: SAND, fine to medium grained, yellowish orange, iron stained, well sorted, masconite throughout
MW-306BR	10	14	SC	CLAYEY SAND: Grades to a clayey SAND, mottled orange to gray. (dry)
MW-306BR	14	21	CL	CLAY: CLAY, very stiff, mottled greenish gray-orange brown. 20 ft Grades into SILTY CLAY with minor sand, stiff
MW-306BR	21	24	SC	CLAYEY SAND: CLAYEY SAND with silt, greenish gray, orange-brown mottled, grade to galliard at 22 ft
MW-306BR	24	26	SP	SAND: SAND, medium grained, light gray, well sorted, wet, 5% quartz gravel at base. Erosional nonconformity
MW-306BR	26	55	SAPROLITE	CLAY: SAPROLITE completely altered to clay, Kaolinite, relic texture still appearant, reddish brown to white to orange brown. At 37 ft Color chane to gray, texture looks like rock, may have been chloritic phyllite. Chlorite veins in place, small quartz
MW-306BR	55	63	AMPHIBOLITE	AMPHBOLITE:
MW-306BR	63	65	SAPROLITE	SAPROLITE: Fractured SAPROLITE coating individual fractures
MW-306BR	65	68	PHYLLITE	PHYLLITE: 63-64.75 ft all saprolite rubble. Water at 64.75. 65.5-67.5 Dark gray graphitic phyllite with sulfide 9pyrite of pyrollite throughout)

Bore	Depth1	Depth2	Lithology	Comment
MW-306BR	68	71	AMPHIBOLITE	AMPHIBOLITE: Weathered rock
MW-306BR	71	80	PHYLLITE	PHYLLITE: Phyllite
MW-307	0	3	FILL	SAND: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction
MW-307	3	8.5	SP	SAND: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown
MW-307	8.5	10	SC	CLAYEY SAND: SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots
MW-307	10	12.5	ML	CLAYEY SILT: SILT-clayey, fine sand, roots, light gray to orange.
MW-307	12.5	16	CL	SAPROLITE: CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated
MW-307	16	23	SP	CLAY: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded
MW-307	23	27	SP	SAND: SAND, medium grained coarsening with depth to coarser grained well sorted light grayto white, subangular mainly quartz with 25% feldspar (galliard).
MW-307	27	52	SAPROLITE	SAPROLITE: SAPROLITE, completely weatheredat top to kaolinite. Relic foundation still visible. 38 ft SAPROLITE turns greenish gray. Less weathering, minor quartz veins
MW-307BR	0	3	FILL	FILL: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft , then changes color to yellowish orange. Yellowish orangeportion looks to be reworked alluvium that may have been graded during construction
MW-307BR	3	8.5	SP	Sand: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iron stained, light brown
MW-307BR	8.5	10	SM	Sand: SAND, clayey, silty, fine to very fine grained. Mottled light gray to orange, iron stained, abundant roots.
MW-307BR	10	12.5	ML	Silt: SILT, clayey, fine sand, roots, light gray to orange
MW-307BR	12.5	16	CL	Clay: CLAY, silty gray to orange, very stiff,roots, contact with both underlaying and overlaying units is graduated
MW-307BR	16	23	SM	sand: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded

Bore	Depth1	Depth2	Lithology	Comment
MW-307BR	23	27	SP	sand: SAND, medium grained coarsening with depth to coarser grained well sorted light grayto white, subangular mainly quartz with 25% feldspar (galliard).
MW-307BR	27	47	SAPROLITE	saprolite: SAPROLITE, completely weatheredat top to kaolinite. Relic foundation still visible. 38 ft SAPROLITE turns greenish gray. Less weathering, minor quartz veins
MW-307BR	47	73.25	AMPHIBOLITE	AMPHIBOLITE:
MW-308	0	4	FILL	SILTY SAND: FILL, silty sand, brown, assorted debris, glass
MW-308	4	5.5	SP	SAND: SAND, fine grained, well sorted, yellowish orange, iron stained
MW-308	5.5	9	SM	SILTY SAND: SILTY SAND, sand fine grained, roota and organic matter, light brown, well sorted
MW-308	9	13	ML	CLAYEY SLIT: SILT, clayey, mottled gray to yellowish orange, stiff
MW-308	13	22	CL	SILTY CLAY: CLAY, silty, dark brown to orange, very stiff. 15 ft SILT, clayey, mottled gray to orange, stiff
MW-308	22	27	SP	SAND: SAND, medium grained, poorly sorted, subangular, no gravel, light gray to tan where not impacted by coal tar. 26 ft GALLIARD. 27 ft yellow fluorescence on grains. Strong staining bluish white. Fluorescent cut. Erosional uncomformity
MW-308	27	50.75	SAPROLITE	SAPROLITE: SAPROLITE at 27.25' below ground surface. Naphthalene odor in upper 3', no observable coal tar or fluorescence. Mottled brown-green to 37.5'. 37.5' Some quartz fragments, distinct color change to dark olive green. From 40-45', slight Naphth
MW-308BR	0	4	FILL	: FILL, silty sand, brown, assorted debris, glass
MW-308BR	4	5.5	SP	SAND: SAND, fine grained, well sorted, yellowish orange, iron stained
MW-308BR	5.5	9	SM	SILTY SAND: SILTY SAND, sand fine grained, roota and organic matter, light brown, well sorted
MW-308BR	9	13	ML	CLAYEY SLIT: SILT, clayey, mottled gray to yellowish orange, stiff
MW-308BR	13	22	CL	SILTY CLAY: CLAY, silty, dark brown to orange, very stiff. 15 ft SILT, clayey, mottled gray to orange, stiff
MW-308BR	22	27	SP	SAND: SAND, medium grained, poorly sorted, subangular, no gravel, light gray to tan where not impacted by coal tar. 26 ft GALLIARD. 27 ft yellow fluorescence on grains. Strong staining bluish white. Fluorescent cut. Erosional uncomformity
MW-308BR	27	55	SAPROLITE	SAPROLITE: SAPROLITE at 27.25' below ground surface. Naphthalene odor in upper 3', no observable coal tar or fluorescence. Mottled brown-green to 37.5'. 37.5' Some quartz fragments, distinct color change to dark olive green. From 40-45', slight Naphth
MW-308BR	55	80.5	AMPHIBOLITE	AMPHIBOLITE:

Bore	Depth1	Depth2	Lithology	Comment
MW-309	0	3	FILL	FILL: FILL, assorted concrete, rock and brick, fragments, light brown to orange
MW-309	3	9	SP	SAND: SAND, fine to medium grained, well sorted, some mascovite, some silt, iron stained, (dry)
MW-309	9	15	SC	CLAYEY SAND: Grades to a CLAYEY SAND, mottled gray and light brown, stiff, root basis in place.
MW-309	15	18	CL	SILTY CLAY: Grades to clay, silty, greenish to yellow orange, some root casts visible, contact with overlaying sand is gradational, stiff, minor sand.
MW-309	18	23	SM	SILTY SAND: Grades to SAND, silty, clayey, well sorted, fine grained greenish gray some light brown mottling
MW-309	23	25	SP	SAND: SAND, medium grained, well sorted, light gray, wet,
MW-309	25	29.25	SW	GRAVELY SAND: Coarsens to GRAVELLY SAND, sand is coarse grained, very angular, poorly sorted in quartz. White to light gray. Some Saprolite tip of crusta. Wet
MW-309	29.25	81	SAPROLITE	SILTY CLAY: SAPROLITE. Almost all Kaolinite at top. 32 ft Highly weathered, most relic texture obscured. Light gray to yellowish orange, minor quartz in veins
MW-309BR	0	3	FILL	: See Monitoring Well Log for MW-309
MW-309BR	3	9	SP	SAND:
MW-309BR	9	15	SC	CLAYEY SAND:
MW-309BR	15	18	CL	SILTY CLAY:
MW-309BR	18	23	SM	SILTY SAND:
MW-309BR	23	25	SP	SAND:
MW-309BR	25	29.25	SW	GRAVELY SAND:
MW-309BR	29.25	83	SAPROLITE	SILTY CLAY:
MW-309BR	83	94	AMPHIBOLITE	AMPHIBOLITE: AMPHILHOLITE/metabasalt pyrite (pyronite throughout) contact with underlying metagraywack sharp. Water at 83-89.5 ft
MW-309BR	94	101.5	METAGRAYWACKE	METAGRAYWACKE: Blue quartz, medium grained
MW-309BR	101.5	102.5	PHYLLITE	PHYLLITE:
MW-309BR	102.5	108.7	METAGRAYWACKE	METAGRAYWACKE:
MW-310	0	1	FILL	FILL: FILL, soil, silty sand, organic material, olive gray
MW-310	1	7	SM	SILTY SAND: SAND, silty, medium grained, orange (iron stained), some masconite flakes, grading to greenish gray with debris. 3-3.25 ft wood fragments, stained black, Naphthalene like odor. 7 ft Black stained sand Naphthalene like odor

Bore	Depth1	Depth2	Lithology	Comment
MW-310	7	14	CL	CLAY: CLAY, mottled greenish gray to orange, stiff. Grading to SILTY CLAY with some fine sand
MW-310	14	18	SP	SAND: SAND, medium gray, micaceous quartz sand, wet, yellowish orange (iron stained) grading into
MW-310	18	25	SW	SAND: a medium to coarse grained sand with 5-10% quartz pebbles. Color grades into a light gray . (less iron staining). Wet. 24 ft Grades into a gravelly sand to sandy gravel, 3 ft quartz pebbles, angular, wet
MW-310	25	30	GW	SANDY GRAVEL: Grades into a coarse sandy gravel. Channel lag deposit. Wet
MW-310	30	75	SAPROLITE	SAPROLITE: SAPROLITE-completely altered to clay. Mottled reddish brown to yellowish orange. White clay veins in places, relic texture appears like rock might have been phyllite. No obvious fractures. 35 ft Relic rock texture becomes apparent. 39' No
MW-310BR	0	1	FILL	: FILL, soil, silty sand, organic material, olive gray
MW-310BR	1	7	SM	SILTY SAND: SAND, silty, medium grained, orange (iron stained), some masconite flakes, grading to greenish gray with debris. 3-3.25 ft wood fragments, stained black, Naphthalene like odor. 7 ft Black stained sand Naphthalene like odor
MW-310BR	7	14	CL	CLAY: CLAY, mottled greenish gray to orange, stiff. Grading to SILTY CLAY with some fine sand
MW-310BR	14	18	SP	SAND: SAND, medium gray, micaceous quartz sand, wet, yellowish orange (iron stained) grading into
MW-310BR	18	25	SW	SAND: a medium to coarse grained sand with 5-10% quartz pebbles. Color grades into a light gray . (less iron staining). Wet. 24 ft Grades into a gravelly sand to sandy gravel, 3 ft quartz pebbles, angular, wet
MW-310BR	25	30	GW	SANDY GRAVEL: Grades into a coarse sandy gravel. Channel lag deposit. Wet
MW-310BR	30	65	SAPROLITE	SAPROLITE: SAPROLITE-completely altered to clay. Mottled reddish brown to yellowish orange. White clay veins in places, relic texture appears like rock might have been phyllite. No obvious fractures. 35 ft Relic rock texture becomes apparent. 39' No
MW-310BR	65	69	AMPHIBOLITE	AMPHIBOLITE:
MW-310BR	69	90	META-ARGILLITE	META-ARGILLITE:
MW-311	0	0.7	TS	TOPSOIL: : Lithologic descriptions above the saprolite are from the Monitoring Well Log for MW-12.
MW-311	0.7	4	SP	SAND: FINE BROWN : Lithologic descriptions above the saprolite are from the Monitoring Well Log for MW-12.

Bore	Depth1	Depth2	Lithology	Comment
MW-311	4	14	ML	SANDY SILT: Firm Brown Slightly Micaceous Silty Fine Sand and Fine Sandy Silt 4-9'; Stiff Brown and Orange Brown slightly Micaceous Fine Sandy Silt. : Lithologic descriptions above the saprolite are from the Monitoring Well Log for MW-12.
MW-311	14	24	CL	SILTY CLAY: Very stiff Brown to Dark Gray slightly Micaceous Silty Clay and Clayey Silt. : Lithologic descriptions above the saprolite are from the Monitoring Well Log for MW-12.
MW-311	24	26	SP	SAND: Galliard. WHITE DENSE FINE. Dense White and Gray slightly Gravelly Fine to Medium Sand; slight odor.
MW-311	26	33	SAPROLITE	SAPROLITE: GALLIARD:
MW-312	0	2.5	TS	TOPSOIL: Lithology from 0-23 based on MW-21.
MW-312	2.5	8	CL	SANDY CLAY: Lithology from 0-23 based on MW-21. CLAY, BRICK
MW-312	8	11	SM	SILTY SAND: Lithology from 0-23 based on MW-21.
MW-312	11	20.8	CL	SILTY CLAY: Lithology from 0-23 based on MW-21. SANDY
MW-312	20.8	23	SP	SAND: Lithology from 0-23 based on MW-21. TRACE GRAVEL
MW-312	23	28	SP	SAND: well-sorted, medium-grain sand
MW-312	28	42	SAPROLITE	SAPROLITE: Depth determined from increased resistance of drilling with 10-inch HSA
MW-313	0	2.5	FILL	TOPSOIL: Lithology from 0-23 based on MW-21.
MW-313	2.5	8	FILL	SANDY CLAY: Lithology from 0-23 based on MW-21. CLAY, BRICK
MW-313	8	11	SM	SILTY SAND: Lithology from 0-23 based on MW-21.
MW-313	11	20.8	CL	SILTY CLAY: Lithology from 0-23 based on MW-21. SANDY
MW-313	20.8	23	SP	SAND: Lithology from 0-23 based on MW-21. TRACE GRAVEL
MW-313	23	28	SP	SAND: well-sorted, medium-grain sand
MW-313	28	61	SAPROLITE	SAPROLITE:
MW-313	61	67	BEDROCK	Bedrock: Fracture at 67 ft bgs
MW-313	67	86	BEDROCK	Bedrock: Fracture at 67 ft bgs
MW-314	0	1.5	SM	no sample: No samples collected 0-20 ft bgs.
MW-314	1.5	2	GP	no sample: No samples collected 0-20 ft bgs.
MW-314	2	3	ML	no sample: No samples collected 0-20 ft bgs.
MW-314	3	4	SP	no sample: No samples collected 0-20 ft bgs.
MW-314	4	7	SC	no sample: No samples collected 0-20 ft bgs.
MW-314	7	21	CL	no sample: No samples collected 0-20 ft bgs.
MW-314	21	22	CL	Clay: Moderate to stiff Clay some silt and fine sand, wet, olive gray (5Y 4/2) to yellowish brown (10YR 5/6)

Bore	Depth1	Depth2	Lithology	Comment
MW-314	22	25.5	SP	Sand: SAND, medium grained quartz, wet, brownish yellow (10YR 6/6)
MW-314	25.5	27.5	SW	Sand: SAND, poorly sorted, fine to coarse, quartz, wet, occasional fine gravel, yellowish brown (10YR 5/8)
MW-314	27.5	28.5	SAPROLITE	Clay: Soft to moderate CLAY, some fine sand and silt near 27.25 to 27.5 bgs. Olive gray (5Y 4/2) to yellowish brown (10YR 5/6)
MW-314	28.5	29	SAPROLITE	Saprolite: Saprolite: Clay, silky texture, strong foliation, strong brown (y.5YR 5/8) to reddish yellow (7.5YR 6/6)
MW-314	29	42	SAPROLITE	no sample: No samples collected 29 to 42 ft bgs.
MW-315	0	1.5	SM	no sample: No samples collected 0-20 ft bgs. no sample: See monitoring well log MW-314 for lithologic description. No lithologic description was obtained for the transition zone or bedrock.
MW-315	1.5	2	GP	no sample: No samples collected 0-20 ft bgs.
MW-315	2	3	ML	no sample: No samples collected 0-20 ft bgs.
MW-315	3	4	SP	no sample: No samples collected 0-20 ft bgs.
MW-315	4	7	SC	No Sample: Wood was encountered at 6 ft bgs resulting in PID reading from 0.5 to 26 ppm with typical readings below 5 ppm. PID reading returned to 0.0 ppm beyond 6 ft bgs.
MW-315	7	21	CL	no sample: No samples collected 0-20 ft bgs.
MW-315	21	22	CL	Clay:
MW-315	22	25.5	SP	Sand:
MW-315	25.5	27.5	SP	Sand:
MW-315	27.5	28.5	SAPROLITE	Clay:
MW-315	28.5	59.5	SAPROLITE	Saprolite:
MW-315	59.5	84.5	BEDROCK	Bedrock:
MW-316	0	3	FILL	FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction
MW-316	3	8.5	SP	SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown
MW-316	8.5	10	SP	SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots
MW-316	10	12.5	ML	SILT-clayey, fine sand, roots, light gray to orange.

Bore	Depth1	Depth2	Lithology	Comment
MW-316	12.5	16	CL	CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated
MW-316	16	23	SP	SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded
MW-316	23	27	SP	SAND, medium grained coarsening with depth to coarser grained well sorted light grayto white, subangular mainly quartz with 25% feldspar (galliard).
MW-316	27	47	SAPROLITE	SAPROLITE, completely weatheredat top to kaolinite. Relic foundation still visible. 38 ft SAPROLITE turns greenish gray. Less weathering, minor quartz veins
MW-316	47	100	AMPHIBOLITE	AMPHIBOLITE:
MW-316	100	101.7	GNEISS	Bedrock: Gneiss with poor banding, thin feldspar layers, increasing chlorite content with depth.
MW-316	101.7	102	BEDROCK	Bedrock: 101.7 ft bgs Thin fracture along foliation, 45 degree dip.
MW-316	102	103.5	BEDROCK	Bedrock: 102 ft bgs - Irregular fracture, approximate 0 degree dip.
MW-316	103.5	104.25	BEDROCK	Bedrock: 103.5 ft bgs - Irregular fracture perpendicular to foliation, 60 degree dip.
MW-316	104.25	106.5	BEDROCK	Bedrock: 104.25 ft bgs - Large fracture (3/4inches) filled with potassium feldspar pegmatite, oblique to foliation
MW-316	106.5	107.25	BEDROCK	Bedrock: 106.5 ft bgs - Rock appears broken along serrated weak zones
MW-316	107.25	108	BEDROCK	Bedrock: 107.25 ft bgs - Fracture parallel to foliation, 70 degree dip
MW-316	108	110	BEDROCK	Bedrock: 108 ft bgs - High angle quartz vein (1/8inches thick).
MW-316	110	116.25	BEDROCK	Bedrock: 110 ft bgs - Thin fracture with apparent precipitate on fracture walls, parallel to foliation.
MW-316	116.25	116.5	BEDROCK	Bedrock: 116.25 ft bgs - Thin fracture with some precipitate along fracture walls, parallel to foliation.
MW-316	116.5	117.8	BEDROCK	Bedrock: 116.5-119.8 ft - Abundant micro fractures and hairline fractures with quartzite, some chlorite.
MW-316	117.8	118	BEDROCK	Bedrock: 117.8 ft bgs - Thin fracture parallel to foliation, minor precipitate (calcite?)
MW-316	118	118.4	BEDROCK	Bedrock: 118 ft bgs - Moderate fracture with precipitate
MW-316	118.4	119.8	BEDROCK	Bedrock: 118.4-119 ft bgs - Thin fractures with moderate to abundant precipitate on fracture walls
MW-317	0	10	SP	no sample: No samples collected 0-20 ft bgs. SAND.
MW-317	10	20	CL	no sample: No samples collected 0-20 ft bgs. SANDY CLAY.

Bore	Depth1	Depth2	Lithology	Comment
MW-317	20	20.2	CL	Clay: Stratified stiff gravely CLAY, gravel with brick and coal fragments, dark brown (25YR 3/8)
MW-317	20.2	20.4	CL	Clay: Soft to moderately stiff silty CLAY, wet, light olive brown (2.5Y 5/4)
MW-317	20.4	24	SP	Sand: SAND, well sorted, medium grained with some fine gravel, wet, less than 5% mica, quartz sand, brownish yellow (10YR 6/6). Abundant fine to coarse quartz gravel at 24 ft bgs. Angular to subangular
MW-317	24	27	NS	no sample: No sample collected 24-28 ft bgs.
MW-317	27	41	SAPROLITE	Saprolite: Driller hit Saprolite at approximately 27 bgs based on drilling rates
MW-318	0	10	SP	no sample: See monitoring well log MW-317 for lithologic description. No lithologic description was obtained for the transition zone or bedrock. SAND.
MW-318	10	20	CL	no sample: See monitoring well log MW-317 for lithologic description. No lithologic description was obtained for the transition zone or bedrock. SANDY CLAY.
MW-318	20	20.2	CL	Clay:
MW-318	20.2	20.4	CL	Clay:
MW-318	20.4	24	SP	Sand:
MW-318	24	27	NS	no sample:
MW-318	27	62	SAPROLITE	Saprolite:
MW-318	62	72.5	BEDROCK	Bedrock:
MW-318	72.5	75	BEDROCK	Bedrock: 72.5 bgs - Fracture
MW-318	75	83	BEDROCK	Bedrock: 75 ft bgs - Fracture
MW-318	83	87	BEDROCK	Bedrock: 83-84.5 ft bgs - Fractures
MW-319	0	10	SP	Alluvium: Silt, stiff clay, and clayey sand; thickness based on typical geology near MW-307. SAND.
MW-319	10	20	CL	Alluvium: Silt, stiff clay, and clayey sand; thickness based on typical geology near MW-307. SANDY CLAY.
MW-319	20	20.2	CL	Clay: Stratified stiff gravely CLAY, gravel with brick and coal fragments, dark brown (25YR 3/8)
MW-319	20.2	20.4	CL	Clay: Soft to moderately stiff silty CLAY, wet, light olive brown (2.5Y 5/4)
MW-319	20.4	23	SP	Sand: SAND, well sorted, medium grained with some fine gravel, wet, less than 5% mica, quartz sand, brownish yellow (10YR 6/6). Abundant fine to coarse quartz gravel at 24 ft bgs. Angular to subangular

Bore	Depth1	Depth2	Lithology	Comment
MW-319	23	28	SP	SAND: Well-sorted, medium-grain sand; thickness based on typical geology near MW-307
MW-319	28	55	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 7.75-inch HAS
MW-319	55	80	BEDROCK	Bedrock: Top of bedrock determined by auger refusal; cuttings from air rotary rig appear to be similar to rock cores collected from MW-307BR
MW-320	0	10	SP	Alluvium: Silt, stiff clay, and clayey sand; thickness based on typical geology near MW-307. SAND.
MW-320	10	20	CL	Alluvium: Silt, stiff clay, and clayey sand; thickness based on typical geology near MW-307. SANDY CLAY.
MW-320	20	20.2	CL	Clay: Stratified stiff gravely CLAY, gravel with brick and coal fragments, dark brown (25YR 3/8)
MW-320	20.2	20.4	CL	Clay: Soft to moderately stiff silty CLAY, wet, light olive brown (2.5Y 5/4)
MW-320	20.4	23	SP	Sand: SAND, well sorted, medium grained with some fine gravel, wet, less than 5% mica, quartz sand, brownish yellow (10YR 6/6). Abundant fine to coarse quartz gravel at 24 ft bgs. Angular to subangular
MW-320	23	28	SP	Sand: Well-sorted, medium-grain sand; thickness based on typical geology near MW-307
MW-320	28	70	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 7.75-inch HAS
MW-320	70	76	BEDROCK	Bedrock: Top of bedrock determined by auger refusal
MW-321	0	3	FILL	SAND: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction (Lith from MW
MW-321	3	8.5	SP	SAND: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown. (Lith from MW-307)
MW-321	8.5	10	SC	CLAYEY SAND: SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots. (Lith from MW-307)
MW-321	10	12.5	ML	CLAYEY SILT: SILT-clayey, fine sand, roots, light gray to orange. (Lith from MW-307)
MW-321	12.5	16	CL	SAPROLITE: CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated. (Lith from MW-307)
MW-321	16	23	SP	CLAY: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded. (Lith from MW-307)

Bore	Depth1	Depth2	Lithology	Comment
MW-321	23	28	SP	Sand: Well-sorted, medium-grain sand; thickness based on typical geology near MW-307
MW-321	28	49	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 8-inch mud rotary bit
MW-321	49	170.2	BEDROCK	Saprolite: Top of bedrock determined by mud rotary refusal; cuttings from air rotary rig appear to be similar to rock cores collected from MW-307BR
MW-322	0	3	FILL	SAND: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction (Lith from MW
MW-322	3	8.5	SP	SAND: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown. (Lith from MW-307)
MW-322	8.5	10	SC	CLAYEY SAND: SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots. (Lith from MW-307)
MW-322	10	12.5	ML	CLAYEY SILT: SILT-clayey, fine sand, roots, light gray to orange. (Lith from MW-307)
MW-322	12.5	16	CL	SAPROLITE: CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated. (Lith from MW-307)
MW-322	16	23	SP	CLAY: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded. (Lith from MW-307)
MW-322	23	28	SP	SAND: Well-sorted, medium-grain sand; thickness based on typical geology near MW-307
MW-322	28	48.6	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 8-inch mud rotary bit
MW-322	48.6	86	BEDROCK	Bedrock: Top of bedrock determined by mud rotary refusal; cuttings from air rotary rig appear to be similar to rock cores collected from MW-307BR
MW-323	0	3	FILL	SAND: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction (Lith from MW
MW-323	3	8.5	SP	SAND: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown. (Lith from MW-307)
MW-323	8.5	10	SC	CLAYEY SAND: SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots. (Lith from MW-307)
MW-323	10	12.5	ML	CLAYEY SILT: SILT-clayey, fine sand, roots, light gray to orange. (Lith from MW-307)

Bore	Depth1	Depth2	Lithology	Comment
MW-323	12.5	16	CL	SAPROLITE: CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated. (Lith from MW-307)
MW-323	16	23	SP	CLAY: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded. (Lith from MW-307)
MW-323	23	28	SP	Sand: Well-sorted, medium-grain sand; thickness based on typical geology near MW-307
MW-323	28	70.5	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 7.75-inch HAS
MW-323	70.5	86	BEDROCK	Saprolite: Top of bedrock determined by auger refusal; cuttings from air rotary rig appear to be similar to rock cores collected from MW-307BR
MW-324	0	3	FILL	SAND: FILL, Silty sand, brick and glass fragments with other debris. Dark brown 0-1.5 ft, then changes color to yellowish orange. Yellowish orange portion of fill looks to be reworked alluvium that may have been graded during construction (Lith from MW
MW-324	3	8.5	SP	SAND: SAND, fine to medium grained, well sorted, masconite flakes, some silt, iorn stained, light brown. (Lith from MW-307)
MW-324	8.5	10	SC	CLAYEY SAND: SAND, clayey, silty,fine to very fine grained. Mottled light to gray to orange, iron satined, abundant roots. (Lith from MW-307)
MW-324	10	12.5	ML	CLAYEY SILT: SILT-clayey, fine sand, roots, light gray to orange. (Lith from MW-307)
MW-324	12.5	16	CL	SAPROLITE: CLAY, silty, gray to orange, very stiff,roots, contact with both overlaying and underlaying units is graduated. (Lith from MW-307)
MW-324	16	23	SP	CLAY: SAND, silty, fine grained, gray to orange, iron stained, micaceous, sand appears well sorted, grains, subangular-subrounded. (Lith from MW-307)
MW-324	23	28	SP	??: Well sorted medium grain sand; thickness based on typical geology near MW-307
MW-324	28	70	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 17-inch mud rotary bit
MW-324	70	215	BEDROCK	Saprolite: Top of bedrock determined by mud rotary refusal; cuttings from air rotary rig appear to be similar to rock cores collected from MW-307BR
MW-325	0	2.5	TS	TOPSOIL:
MW-325	2.5	8	CL	SANDY CLAY: CLAY, BRICK. Brown and dark brown Clayey Silty Sand and Clay (Fill). Brick fragments at 4.0 ft.
MW-325	8	11	SM	SILTY SAND: Loose brown Silty fine to medium Sand (SM). Wet at 8.0 ft.
MW-325	11	20.8	CL	SILTY CLAY: SANDY. Soft to very stiff brown, tan and gray mottled slightly Sandy Silty Clay (CL). Wet at 18.0 ft.

Bore	Depth1	Depth2	Lithology	Comment
MW-325	20.8	23	SM	SAND: TRACE GRAVEL. Loose to firm orange brown slightly Silty fine to coarse Sand with trace of Gravel (SM)
MW-325	23	28	SP	SAND: Well sorted medium-grain sand; thickness based on typical geology near MW-307
MW-325	28	95	SAPROLITE	Saprolite: Depth to top of saprolite determined from increased resistance of drilling with 7.75-inch mud rotary bit
MW-325	95	115	BEDROCK	Bedrock: Top of bedrock determined by auger refusal
MW-401D	0	8	CL	CLAY: CLAY (CL), hard, occasional root material, mottled reddish yellow (7.5YR 6/8) and light olive gray (5Y 6/2).
MW-401D	8	12	CL	CLAY: Grades from same as above to CLAY (CL), hard friable, Fe/Mn staining, light olive gray (5Y 6/2).
MW-401D	12	14.25	CL	CLAY: CLAY (CL), hard, mottled reddish yellow (7.5YR 6/8) to light olive gray (5Y 6/2), some Fe/Mn staining, thin lens of Sandy CLAY at 13.9-14 ft.
MW-401D	14.25	16	SP	SAND: SAND (SP), fine-grained, 5% heavy minerals, wet, pale yellow (2.5Y 7/4).
MW-401D	16	20	NR	NO SAMPLE: No recovery.
MW-401D	20	24	SW	SAND: SAND (SW), fine-grained, well sorted grades downward to poorly sorted sand, predom. Medium grained, some coarse sand and fine gravel, wet, 3-10% heavy minerals, yellow (2.5Y 8/6).
MW-401D	24	28	SW	SAND: SAND (SW), poorly sorted, fine to coarse, occasional fine to coarse gravel, subangular to subrounded, Fe staining, wet 1% heavy minerals, yellow (10YR 7/8).
MW-401D	28	32	SW	SAND: SAND (SP), grades downward from fine to medium grained quartz sand to poorly sorted gravelly SAND (SW) fine to coarsesand and fine to coarse gravel, wet, pale ywllow (2.5Y 8/4), subangular to rounded gravel and coarse sand
MW-401D	32	36	SP	SAND: SAND (SP), fine-grained sand grading downward to medium grained sand, occasional coarse sand, wet, residual BPLM at 33-34 ft with BPLM sheen above and below residual BPLM, white (5Y 8/1).
MW-401S	0	8	CL	CLAY: CLAY (CL), hard, occasional root material, mottled reddish yellow (7.5YR 6/8) and light olive gray (5Y 6/2).
MW-401S	8	20.2	CL	SILTY CLAY: Orange brown, dry, hard SILTY CLAY, micaceous, friable, no odor, slightly mottled with iron oxide staining.
MW-401SAP	0	8	CL	CLAY: CLAY (CL), hard, occasional root material, reddish yellow (7.5YR 6/8) and light olive gray (5Y 6/2).

Bore	Depth1	Depth2	Lithology	Comment
MW-401SAP	8	12	CL	SILTY CLAY: Grades from same as above to CLAY (CL), hard, friable, Fr/Mn staining, light olive gray (5Y 6/2).
MW-401SAP	12	14.25	CL	CLAY: CLAY (CL), hard, mottled reddish yellow (7.5YR 6/8) to light olive gray (5Y 6/2), some Fe/Mn staining, thin lens of sandy clay at 13.9 - 14 ft.
MW-401SAP	14.25	16	SP	SAND: SAND (SP), fine-grained, 5% heavy minerals, wet, pale yellow (2.5Y 7/4).
MW-401SAP	16	20	NR	NO SAMPLE: No recovery.
MW-401SAP	20	24	SW	SAND: SAND (SW), fine-grained, well-sorted, grades downward to poorly sorted sand, predom. Medium grained, some coarse sand and fine gravel, wet, 3-10% heavy minerals, yellow (2.5Y 8/6).
MW-401SAP	24	28	SW	SAND: SAND (SW), poorly sorted, fine to coarse, occasionally fine to coarse gravel, subangular to subrounded, Fe staining, wet, 1% heavy minerals, yellow (10YR 7/8).
MW-401SAP	28	32	SW	SAND: SAND (SP), grades downward from fine to medium grained quartz sand to poorly sorted gravelly SAND (SW), fine to coarse sand and fine to coarse gravel, wet, pale yellow (2.5Y 8/4), subangular to rounded gravel and coarse sand.
MW-401SAP	32	35	SP	SAND: SAND (SP), fine-grained sand grading downward to medium grained sand, occasional coarse sand, wet, residual BPLM at 33-34 ft with BPLM sheen above and below residual BPLM white (5Y 8/1).
MW-401SAP	35	35.5	CL	SILTY CLAY: Tannish brown, wet, dense, Silty CLAY, muck, soupy, some fine Sand.
MW-401SAP	35.5	36	SP	GRAVELLY SAND: Light grey, wet, dense, fine to medium Gravelly SAND, gravel fragments, no odor, no BPLM.
MW-401SAP	36	48	SAPROLITE	CLAY: Light reddish brown (2.5YR 6/4), moist, hard, low plasticity, SAPROLITE, Clay with relic foliated texture, no odor.
MW-402D	0	2	FILL	CLAYEY SAND: Orange brown, moist, loose, mottled, Clayey fine to medium SAND. Grain size increases with depth.
MW-402D	2	5.5	FILL	CLAYEY SAND: SAA
MW-402D	5.5	6	CL	SILTY CLAY: Above grades into medium light grey (1Gley 7/10Y), stiff, slightly plastic, Silty CLAY, some iron oxide mottled root scars.
MW-402D	6	8	CL	SILTY CLAY: Light grey (1Gley 7/10 Y), dry, very stiff, Silty CLAY, consistent roots throughout, some iron oxide staining around root zones.
MW-402D	8	10.2	CL	SILTY CLAY: SAA, root content decreasing slightly.
MW-402D	10.2	11.1	CL	SILTY CLAY: SAA

Bore	Depth1	Depth2	Lithology	Comment
MW-402D	11.1	12.7	SC	CLAYEY SAND: Above grades into moist, micaceous, moderately plastic, Clayey medium SAND (SC-USCS), roots stop at 11.2 ft bgs.
MW-402D	12.7	13.3	SC	CLAYEY SAND: SAA, moist.
MW-402D	13.3	14	SC	CLAYEY SAND: Yellow orange brown (2.5Y 7/2), wet, medium dense, Clayey SAND, trace Silt.
MW-402D	14	16	SW	SAND: Yellow orange brown (2.5Y 6/6), wet, medium dense, farirly well sorted, fine to medium SAND, micaceous, trace Silt, finer grained that above.
MW-402D	16	18	SW	SAND: Yellow brown, orange (10YR 7/6), wet, medium dense, fine to medium SAND stacked in fineer and coarser zones 0.5 to 1.5-inches thick, trace Silt 5% heavy minerals.
MW-402D	18	22.6	SW	SAND: Orange brown, wet, medium dense, fine to medium SAND, trace Silt, 5% heavy minerals, micaceous.
MW-402D	22.6	23.9	SW	SAND: SAA
MW-402D	23.9	24	SP	GRAVELY SAND: Light tan (10YR 7/2), Gravely SAND, some coarse Sand.
MW-402D	24	26	SW	GRAVELY SAND: Light grey (10YR 7/2), wet, medium dense, Gravely SAND, trace Silt. Some friable schist gravel weathered to clay/kaolinite.
MW-402D	26	28	SAPROLITE	CLAY: White, light grey, moist/dry, very stiff, SAPROLITE (clay, speckled darker minerals), orange mottled banding-slight plasticity.
MW-402S	0	2	FILL	CLAYEY SAND: Orange brown, moist, loose, mottled, Clayey fine to medium SAND. Grain size increases with depth.
MW-402S	2	5.5	FILL	CLAYEY SAND: SAA
MW-402S	5.5	6	CL	SILTY CLAY: Above grades into medium light grey (1Gley 7/10Y), stiff, slightly plastic, Silty CLAY, some iron oxide mottled root scars.
MW-402S	6	8	CL	SILTY CLAY: Light grey (1Gley 7/10 Y), dry, very stiff, Silty CLAY, consistent roots throughout, some iron oxide staining around root zones.
MW-402S	8	10	CL	SILTY CLAY: SAA, root content decreasing slightly.
MW-402S	10	19	CL	CLAY: Light tan grey (2.5Y 7/1), dry/moist, very stiff, iron oxide mottled CLAY grading into Sandy CLAY, root zones in clay, Mn staining, light iron oxide mottling throughout.
MW-404D	0	4	FILL	SILTY SAND: Rubble, bricks, rock debris.
MW-404D	4	5.2	FILL	CLAYEY SAND: Red brown, dry, medium dense, Clayey SAND, some rock and cinders.
MW-404D	5.2	5.6	CL	SILTY CLAY: Dark brown, Silty CLAY (5.2 - 5.6 ft bgs), Moist.
MW-404D	5.6	8	SC	CLAYEY SAND: Tan to moderate brown (10YR 6/6), moist, loose Clayey SAND, mottled light and dark brown, little iron oxide staining.

Bore	Depth1	Depth2	Lithology	Comment
MW-404D	8	10	CL	SILTY CLAY: Tannish brown, moist, medium stiff, moderate plasticity, Silty CLAY, little fine Sand, pervasive iron oxide and Mn stained root scars, iron nodules, mottled appearance.
MW-404D	10	12	CL	SILTY CLAY: Light grey to orange, moist, medium stiff, moderate plasticity, Silty CLAY, mottled iron oxide staining, some iron nodules (fewer than above), no dark Mn staining.
MW-404D	12	15.9	CL	SILTY CLAY: Orange to tan, moist, medium stiff, Silty CLAY, trace fine Sand, pervasive iron oxide mottling, occasional fine gravel (subangular).
MW-404D	15.9	16	CL	SILTY CLAY: SAA, some visible roots, fibrous, tanned to light grey, moderate plasticity, little Mn staining.
MW-404D	16	18	CL	SANDY CLAY: Light bluish grey (2Gley 7/1 10B), very stiff, homogeneous, Sandy CLAY, trace fine gravel.
MW-404D	18	20.7	CL	SANDY CLAY: SAA, plasticity slightly increased, very faint Hydrogen sulfide odor.
MW-404D	20.7	20.9	CL	SANDY CLAY: SAA, gradually changing to light brown.
MW-404D	20.9	22	SAPROLITE	CLAY: Light grey to white (1Gley 8/N) (Salt and Pepper appearance), moderate plasticity, CLAY, some relic mineralized fracture zones.
MW-404D	22	22.6	SAPROLITE	CLAY: SAA
MW-404D	22.6	23.7	SAPROLITE	CLAY: Orange brown to tan, mottled, striated SAPROLITE, relic foliations with 45 degree dip.
MW-404D	23.7	24	SAPROLITE	CLAY: Very hard, relic rock fragments (wnweathered zones), dark iron oxide and Mn staining, rock looks like relic siltstone.
MW-404DR	0	5	FILL	Fill: Fill
MW-404DR	5	6	SW	SAND: SAND: red, fine-coarse grained, subangular, loose, moist, some gravel.
MW-404DR	6	8	SP	SAND: SAND: black, fine grained, medium dense, moist, some clay.
MW-404DR	8	11.4	SC	CLAYEY SAND: Clayey SAND: tan, fine grained, medium dense, moist.
MW-404DR	11.4	13.4	CL	SANDY CLAY: Sandy CLAY: light gray/orange, stiff, nonplastic, moist, graded into-
MW-404DR	13.4	18.8	CL	CLAY: CLAY: light gray/orange, very stiff, nonplastic, some silt, moist - wet @ 15'.
MW-404DR	18.8	20	SC	CLAYEY SAND: Clayey SAND: light gray/orange, subangular, dense, moist, slight staining @ 20.5'.
MW-404DR	20	21.5	SC	CLAYEY SAND: Clayey SAND: grayish blue, fine grained, very dense, moist.
MW-404DR	21.5	21.5	SAPROLITE	SAPROLITE: SAPROLITE: white, soft.
MW-405D	0	2	SM	SILTY SAND: Dry, medium dense, Silty SAND, black, (0-0.3 ft bgs), reddish yellow (7.5YR 6/8) (0.3 - 0.5 ft bgs), pale brown (10YR 8/4) with some orange striations (0-1.0 ft bgs).

Bore	Depth1	Depth2	Lithology	Comment
MW-405D	2	3.5	SM	SILTY SAND: SAA, brownish yellow (10YR 6/8) (2.8 ft - 3.2 ft bgs), dark yellowish brown (10YR 3/6) (3.2 ft - 3.4 ft bgs).
MW-405D	3.5	4.9	SP	SAND: Interbedded white tan and moderate brown 0.025 ft thick layers of dry, medium dense, fine SAND, well sorted. Layers dip approsicately 15 degrees, layers become greyer towards the bottom.
MW-405D	4.9	5.45	SP	SAND: SAA
MW-405D	5.45	6	ML	SANDY SILT: Strong brown (7.5YR 5/6) dry, finely layered, fine Sandy SILT, see 1-mm thick black and orange striations.
MW-405D	6	9.7	ML	SANDY SILT: SAA, dry, soft, less Sand, no black striations, no odor.
MW-405D	9.7	10	SM	SILTY SAND: Wet, strong brown (7.5YR 5/6), Silty SAND.
MW-405D	10	12.6	SM	SILTY SAND: SAA, loose, slightly mottled with tan and reddish brown, some Clay in the tan, not plastic.
MW-405D	12.6	13.1	SM	SILTY SAND: SAA, mottled, damp.
MW-405D	13.1	13.45	SM	SILTY SAND: Wet, more Sand.
MW-405D	13.45	14.75	CL	SILTY SAND: Mottled, red-brown with light grey, dampm stiff Silty CLAY, little fine Sand, trace black heavy minerals.
MW-405D	14.75	32	ML	GRAVELY SAND: Mottled grey and reddish brown, damp, very stiff, fine Sandy SILT (mostly Silt).
MW-407D	0	1.25	FILL	FILL: FILL
MW-407D	1.25	2.15	FILL	SANDY SILT: Moderate brown to light brown, dry, stiff, fine Sandy SILT
MW-407D	2.15	6.75	FILL	SILTY SAND: Black over Brown, dry, hard, Silty SAND, some crushed brick (piece at 3' bgs) and gravel (granite?), root at ~6.5 bgs.
MW-407D	6.75	6.95	FILL	SAND: Tan, dry, loose, fine SAND, well sorted
MW-407D	6.95	8.1	FILL	SANDY SILT: Brown, dry, Sandy SILT
MW-407D	8.1	8.9	FILL	SILT: Crushed coal over red, dry, weathered brick, over thin band of brown SILT
MW-407D	8.9	10.15	ML	SANDY SILT: Grey, moist, Sandy SILT
MW-407D	10.15	11.8	SM	SILTY SAND: Interbedded layers of grey, damp, medium soft, Silty SAND and dark grey (10YR 4/1), damp, moderately plastic, Silty CLAY (stringers).
MW-407D	11.8	12.4	SM	SILTY SAND: SAA, light brownish grey (2.5Y 6/2), wet, loose, grading into moderately plastic Sandy SILT and CLAY
MW-407D	12.4	20.1	SM	SILTY SAND: Light tan, wet, Silty fine SAND, clay lens at 14.6-14.65', silt lens at 14.65-14.7', and a few thin grey clay layers at 18.8-19'

Bore	Depth1	Depth2	Lithology	Comment
MW-407D	20.1	24.45	CL	SILTY CLAY: Dark greenish grey (1 Grey 4/1), moderately plastic Silty CLAY, some organics at 20.8' bgs (black, some roots and leaf fibers)
MW-407D	24.45	25	ML	SANDY SILT: Dark grey - black (1 Grey 2.5/N), damp, soft, Sandy SILT, some wood fibers, organic smell
MW-407D	25	27	CL	SILTY CLAY: Grey, damp, plastic, Silty CLAY, some scattered organics (brown wood fibers) concentrated at 26.7-26.75' bgs. One coarse gravel size piece of brick or sandstone at 26.6'.
MW-407D	27	30.2	CL	SILTY CLAY: Same as above, dark greenish grey (1 Grey 3/1) pockets of organics, some scattered very fine organics in Silty CLAY, trace fine sand, 3/4-inch diameter branch in bottom of spoon (peat). Piece of wood (cut branch) at 30-30.2' bgs.
MW-407D	30.2	30.5	SAPROLITE	CLAY: Dark greenish grey (1 Grey 3/1) to bluish grey and tan, stiff CLAY with relic fracture scars, SAPROLITE
MW-408D	0	2	FILL	SILTY SAND: Very dark greyish brown (10YR 3/2), dry, medium dense, Silty SAND, some crushed brick
MW-408D	2	4.7	FILL	SILTY SAND: Red brown, dry, Silty SAND, little medium Gravel.
MW-408D	4.7	5.05	FILL	SILTY SAND: Dark brown to very dark brown, medium dense, Silty SAND
MW-408D	5.05	6	FILL	SILTY SAND: Brownish yellow (10YR 6/6), dry medium dense, Silty fine SAND, trace coarse sand and gravel, piece of coal at 5.8 bgs.
MW-408D	6	8	FILL	BRICK: BRICKS, auger to 7'
MW-408D	8	8.3	FILL	SAND: Dark brown, dry, medium dense to loose, SAND and SILT, piece of brick
MW-408D	8.3	9.8	SM	SAND: Yellowish brown (10YR 5/4) medium dense, medium to fine SAND, trace silt
MW-408D	9.8	10.4	SP	SAND: Yellowish brown, dry, fine to medium SAND
MW-408D	10.4	10.85	SP	SAND: Brown (10YR 5/3), slightly mottled, dry, loose, fine to medium SAND
MW-408D	10.85	11	ML	SANDY SILT: Orange brown, mottled, slightly plastic, fine Sandy SILT and CLAY, one thin streak of white.
MW-408D	11	13.4	SM	SAND: Red brown, SAND and SILT
MW-408D	13.4	13.6	SP	SAND: Black, wet SAND, some Gravel and crushed brick,
MW-408D	13.6	19	ML	SANDY SILT: Very dark grey (2.5Y 4/1), damp, medium soft, slighty plastic, fine Sandy SILT, little Clay, trace wood fibers increasing towards bottom, color changes to very dark brown with organic matter.

Bore	Depth1	Depth2	Lithology	Comment
MW-408D	19	30	ML	SILT: Very dark grey (10YR 3/1) to black (10YR 4/1), moist to wet, soft, SILT and long, stringy, tangled, wood fibers, trace fine Sand, wood cut by split-spoon at 21.6-21.9', fresh yellow appearance, 2-mm branches at 21.9-22', trace lt blue Clay near 30'
MW-408D	30	31	SAPROLITE	CLAY: Dark greenish grey (2 Grey 4/1), damp, stiff CLAY, dots of orange brown throughout, sample breaks along relic fracture planes. Large piece of wood at 30.4' bgs, may be old root.
MW-408D	31	31.8	SAPROLITE	SILTY CLAY: Greenish grey (1 GREY 5/2), damp, stiff, friable, Silty CLAY, brown on relic parallel, 45 degree dipping, fracture traces
MW-408D	31.8	33	SAPROLITE	SILTY CLAY: Lighter greenish grey (1 Grey 6/2), hard, friable, relic fractures dip sharply, texture like phyllite
MW-408S	0	2	FILL	SILT: Very dark greyish brown (10YR 3/2), dry, medium dense, Silty SAND, some crushed brick
MW-408S	2	4.7	FILL	SILTY SAND: Red brown, dry, Silty SAND, little medium Gravel.
MW-408S	4.7	5.05	FILL	SILTY SAND: Dark brown to very dark brown, medium dense, Silty SAND
MW-408S	5.05	6	FILL	SILTY SAND: Brownish yellow (10YR 6/6), dry medium dense, Silty fine SAND, trace course sand and gravel, piece of coal at 5.8 bgs.
MW-408S	6	8	FILL	BRICK: BRICKS, auger to 7'
MW-408S	8	9.8	FILL	SAND: Dark brown, dry, medium dense to loose, SAND and SILT, piece of brick
MW-408S	9.8	10.85	SP	SAND: Yellowish brown, dry, fine to medium SAND
MW-408S	10.85	11	ML	SANDY SILT: Orange brown, mottled, slightly plastic, fine Sandy SILT and CLAY, one thin streak of white.
MW-408S	11	13.4	SM	SAND: Red brown, SAND and SILT
MW-408S	13.4	13.6	SP	SAND: Black, wet SAND, some Gravel and crushed brick,
MW-408S	13.6	19	ML	SANDY SILT: Very dark grey (2.5Y 4/1), damp, medium soft, slighty plastic, fine Sandy SILT, little Clay, trace wood fibers increasing towards bottom.
MW-408S	19	20	ML	SILT: Very dark grey (10YR 3/1) to black (10YR 4/1), moist to wet, soft, SILT and long, stringy, tangled, wood fibers, trace fine Sand, trace light blue Clay on the bottom.
MW-500BR	0	5	FILL	No Sample Collected: No Sample Collected
MW-500BR	5	5.6	FILL	FILL: FILL
MW-500BR	5.6	8.1	SM	SILTY SAND: Silty SAND: Light tan/orange, very fine - fine grained, very dense, moist, trace clay.

Bore	Depth1	Depth2	Lithology	Comment
MW-500BR	8.1	10	SP	SAND: SAND: yellow/tan, fine - medium grained, subangular, medium dense - dense, moist.
MW-500BR	10	23	SW	SAND: SAND: yellow/tan, fine - coarse grained, subangular, loose, some gravel, moist - wet @ 13.9', graded into-
MW-500BR	23	25	SW	GRAVELLY SAND: Gravelly SAND: yellow/tan, fine - very coarse grained, subangular, loose, wet.
MW-500BR	25	27.6	SW	GRAVELLY SAND: SAA: tan, medium - very coarse grained, subangular, loose, wet.
MW-500BR	27.6	28	SAPROLITE	QUARTZ VEIN: QUARTZ VEIN
MW-500BR	28	29.2	SAPROLITE	GRAVELLY SAND: SAA: orange
MW-500BR	29.2	35	SAPROLITE	GRAVELLY SAND: SAA: white/tan
MW-500BR	35	64	SAPROLITE	SAPROLITE: SAPROLITE: tan/brown, hard.
MW-500BR	64	79	BEDROCK	BEDROCK: BEDROCK: high H-C like odor.
MW-501S	0	5	FILL	FILL: FILL
MW-501S	5	6	SW	SAND: SAND: red, fine-coarse grained, subangular, loose, moist, some gravel.
MW-501S	6	8	SP-SC	SAND: SAND: black, fine grained, medium dense, moist, some clay.
MW-501S	8	10	SC	CLAYEY SAND: Clayey SAND: tan, fine grained, medium dense, moist.
MW-501S	10	11.4	SC	CLAYEY SAND: SAA
MW-501S	11.4	13.4	CL	SANDY CLAY: Sandy CLAY: light gray/orange, stiff, nonplastic, moist, graded into-
MW-501S	13.4	18.8	CL	CLAY: CLAY: light gray/orange, very stiff, nonplastic, some silt, moist - wet @ 15'.
MW-501S	18.8	20	SC	CLAYEY SAND: Clayey SAND: light gray/orange, subangular, dense, moist, slight staining @ 20.5'.
MW-501S	20	21.5	SC	CLAYEY SAND: Clayey SAND: grayish blue, fine grained, very dense, moist.
MW-501S	21.5	22	SAPROLITE	SAPROLITE: SAPROLITE: white, soft.
MW-502D	0	5	NS	No Sample Collected: No Sample Collected
MW-502D	5	8.2	SP	SAND: SAND: light tan, medium - coarse grained, subangular, medium dense, moist, trace clay.
MW-502D	8.2	12.8	SC	CLAYEY SAND: Clayey SAND: dark gray/green, fine grained, dense.
MW-502D	12.8	14.4	CH	SANDY CLAY: Sandy CLAY: dark gray, very soft, high plasticity, wet.
MW-502D	14.4	15	OL	WOOD: WOOD CHIPS
MW-502D	15	19.8	CH	SANDY CLAY: Sandy CLAY: dark gray, very soft, high plasticity, wet.
MW-502D	19.8	20	SP	SAND: SAND: dark gray, medium - coarse grained, subangular, medium dense, wet, some clay, slight HCL odor.

Bore	Depth1	Depth2	Lithology	Comment
MW-502D	20	23.5	SP	SAND: SAND: light gray, medium - coarse grained, subangular, medium dense, wet, trace gravel, high HCL odor, HC staining @ 22 - 23.5', Residual TLM throughout.
MW-502D	23.5	24.6	CH	CLAY: CLAY: gray, medium stiff, high plasticity, wet, some sand, moderate HCL odor.
MW-502D	24.6	26.2	SP	SAND: SAND: light gray, fine - medium grained, subangular, dense, moist, moderate HCL odor.
MW-502D	26.2	26.2	SAPROLITE	SAPROLITE: SAPROLITE: green graded into brown, moist, high HCL odor.
MW-503BR	0	6	NS	No sample
MW-503BR	6	12	SP	SAND: SAND: brown, fine grained, subrounded, medium dense, moist - wet, some clay, slight odor
MW-503BR	12	16	CH	SANDY CLAY: Sandy CLAY: gray and tan mottling, stiff, medium - high plasticity, wet, high odor, blebs throughout
MW-503BR	16	24	CH	CLAY: CLAY: greenish gray, high plasticity, wet, high odor, blebs throughout
MW-503BR	24	25	SP	SAND: SAND: coarse grained, rounded, loose, wet, high odor, saturated with TLM (low viscosity)
MW-503BR	25	28	CL	SILTY CLAY: Silty CLAY: light tan, stiff, low plasticity, wet, slight odor
MW-503BR	28	32	SAPROLITE	SILTY CLAY: Silty CLAY: brown, very stiff, medium plasticity, moist, slight odor, residual gasoline - like material at 31 feet, with strong odor.
MW-503BR	32	36	SAPROLITE	SAPROLITE: SAPROLITE: light green - gray, stiff, medium plasticity, wet
MW-503BR	36	46	SAPROLITE	SAPROLITE: SAPROLITE: dark green, dry crumbles with some sandy zones
MW-503BR	46	54	PWR	PWR: PWR: gray, dry gravel and powder, able to be broken apart by hand
MW-503BR	54	55	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: black, highly fractured into gravel - sized pieces.
MW-503BR	55	66	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: black, dense, fracture at 60', calcite deposits in fractures, trace possible TLM visible under blacklight
MW-503BR	66	76	EPIDOTE	BEDROCK: EPIDOTE: green, fractures @ ~45 degree angles
MW-503D	0	5	NS	No Sample Collected: No Sample Collected
MW-503D	5	7.6	FILL	FILL: FILL: clayey SAND, brown/gray, fine - medium grained, subangular, loose, moist.
MW-503D	7.6	10	SC	CLAYEY SAND: Clayey SILT: brown/dark green, soft, nonplastic, moist, high HCL odor, residual TLM throughout.
MW-503D	10	13	CL	SANDY CLAY: Sandy CLAY: brown/dark green, medium stiff, nonplastic, moist, high HCL odor, blebs throughout.
MW-503D	13	14.5	CL	CLAY: CLAY: brown/dark green, stiff, low plasticity, moist, trace sand, high HCL odor, blebs throughout.

Bore	Depth1	Depth2	Lithology	Comment
MW-503D	14.5	15	CL	SANDY CLAY: Sandy CLAY: brown/dark green, medium stiff, nonplastic, moist, high HCL odor, blebs throughout.
MW-503D	15	17	CL	SANDY CLAY: Sandy CLAY: wet, high HCL odor, oily sheen.
MW-503D	17	19.5	CL	CLAY: CLAY: dark gray, stiff, medium plasticity, moist, trace sand, high HCL odor, blebs throughout, residual TLM @18.4'.
MW-503D	19.5	20	ML	CLAYEY SANDY SILT: Clayey Sandy SILT: orange, stiff, nonplastic, moist, high HCL odor, blebs throughout.
MW-503D	20	21.7	CL	SILTY CLAY: Silty CLAY: orange/gray, stiff, low plasticity, moist, high HCL odor.
MW-503D	21.7	24	CL	CLAY: CLAY: light gray, stiff, medium plasticity, moist, some sand, high HCL odor, blebs throughout, stringer @ 23'.
MW-503D	24	25	SP	SAND: SAND: light gray, medium - coarse grained, subangular, loose, moist, high HCL odor, residual TLM from 24 - 25'.
MW-503D	25	26.5	SM	SILTY SAND: Silty SAND: white, very fine - fine grained, dense - very dense, dry, high HCL odor.
MW-503D	26.5	28.7	SM	SILTY SAND: Silty SAND: light brown, very fine - fine grained, dense - very dense, dry, high HCL odor.
MW-503D	28.7	28.7	SAPROLITE	SAPROLITE: SAPROLITE: light brown/tan, very dense, dry, moderate HCL odor.
MW-503S	0	5	NS	No Sample Collected: No Sample Collected
MW-503S	5	7.6	SC	FILL: FILL: clayey SAND, brown/gray, fine - medium grained, subangular, loose, moist.
MW-503S	7.6	10	SC	CLAYEY SAND: Clayey SILT: brown/dark green, soft, nonplastic, moist, high HCL odor, residual TLM throughout.
MW-503S	10	13	CL	SANDY CLAY: Sandy CLAY: brown/dark green, medium stiff, nonplastic, moist, high HCL odor, blebs throughout.
MW-503S	13	14.5	CL	CLAY: CLAY: brown/dark green, stiff, low plasticity, moist, trace sand, high HCL odor, blebs throughout.
MW-503S	14.5	15	CL	SANDY CLAY: Sandy CLAY: brown/dark green, medium stiff, nonplastic, moist, high HCL odor, blebs throughout.
MW-503S	15	17	CL	SANDY CLAY: Sandy CLAY: wet, high HCL odor, oily sheen.
MW-503S	17	19.5	CL	CLAY: CLAY: dark gray, stiff, medium plasticity, moist, trace sand, high HCL odor, blebs throughout, residual TLM @18.4'.
MW-503S	19.5	20	ML	CLAYEY SANDY SILT: Clayey Sandy SILT: orange, stiff, nonplastic, moist, high HCL odor, blebs throughout.

Bore	Depth1	Depth2	Lithology	Comment
MW-504BR	0	6	NS	No sample.
MW-504BR	6	12	CH	SANDY CLAY: Sandy CLAY: green and brown, soft, medium - high plasticity, wet, high odor, sheen in water.
MW-504BR	12	16	CH	CLAY: CLAY: gray - brown, stiff - very stiff, high plasticity, wet, little sand, high odor, slight staining
MW-504BR	16	20	CH	CLAY: CLAY: tan - gray, very stiff, high plasticity, little sand, wet, high odor
MW-504BR	20	22	CH	SANDY CLAY: Sandy CLAY: tan - gray, stiff, high plasticity, wet, high odor, trace blebs 20-22 ft.
MW-504BR	22	24	SP	SAND: SAND: gray, medium - coarse grained, subrounded - rounded, loose, wet, high odor, little residual TLM 22 - 22.5', saturated residual TLM 22.6 - 24'
MW-504BR	24	26	CL	SILTY CLAY: Silty CLAY: tan - light green, stiff, low plasticity, moist, moderate odor
MW-504BR	26	31	CL	SILTY CLAY: Silty CLAY: tan - light green, stiff, low plasticity, dry, slight odor
MW-504BR	31	40	SAPROLITE	SAPROLITE (CLAY): SAPROLITE: clay, very stiff, medium plasticity, no odor, moist
MW-504BR	40	46	SAPROLITE	SAPROLITE: SAPROLITE: dark gray, some gravel - sized rock fragments, moist
MW-504BR	46	58	SAPROLITE	SAPROLITE: SAPROLITE: gray, some small gravel - sized rock fragments, dry
MW-504BR	58	66	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: numerous fractures at approximately 85º angle.
MW-504BR	66	74	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: dark gray, healed fractures at 75º - 90º angle.
MW-504BR	74	80	META-ARGILLITE	BEDROCK: META-ARGILLITE: layered at approximately 25º angle from horizontal.
MW-504D	0	5	FILL	FILL: FILL
MW-504D	5	8	SP-SC	SAND: SAND: brown, fine grained, medium dense, moist, some clay.
MW-504D	8	9.2	SP	SAND: SAND: blue gray/green, fine grained, medium dense, moist, graded into-
MW-504D	9.2	10	SC	CLAYEY SAND: Clayey SAND: blue gray/green, fine grained, dense, moist.
MW-504D	10	14.4	SP-SC	SAND: SAND: blue gray/green, fine grained, medium dense, wet, some clay.
MW-504D	14.4	15	CL	SILTY CLAY: SILTY CLAY: brown/gray, stiff, nonplastic, moist, moderate HCL odor, blebs @ 14.5'.
MW-504D	15	19.8	CL	SILTY CLAY: SAA: brown/orange, very stiff, nonplastic, moist, high HCL odor, blebs @ 16', 16.4', 18.8', 18.9', 19'.
MW-504D	19.8	20	CL	CLAY: CLAY: gray, very stiff, low plasticity, moist, some silt and sand, high HCL odor, bleb @ 19.8'.
MW-504D	20	20.5	SP-SC	SAND: SAND: fine - medium grained, subangular, medium dense, moist, some clay, high HCL odor, residual from 20 - 20.5'.

Bore	Depth1	Depth2	Lithology	Comment
MW-504D	20.5	22.5	CL	CLAY: CLAY: gray/orange, very stiff, low plasticity, moist, some silt and sand, high HCL odor, blebs throughout, stringers @ 21', 21.8 - 21.9', 22.1 - 22.2', 24.1 - 24.6'.
MW-504D	22.5	24.8	CL	CLAY: SAA: light gray, stiff, low plasticity, moist, some silt and sand, high HCL odor, blebs and stringers throughout.
MW-504D	24.8	26.2	SP	SAND: SAND: light gray, medium - coarse grained, subangular, loose, wet, high, residual from 24.8 - 26.2'.
MW-504D	26.2	26.2	SAPROLITE	SAPROLITE: SAPROLITE: white
MW-504S	0	5	FILL	FILL: FILL
MW-504S	5	8	SP-SC	SAND: SAND: brown, fine grained, medium dense, moist, some clay.
MW-504S	8	9.2	SP	SAND: SAND: blue gray/green, fine grained, medium dense, moist, graded into…
MW-504S	9.2	10	SC	CLAYEY SAND: Clayey SAND: blue gray/green, fine grained, dense, moist.
MW-504S	10	14.4	SP-SC	SAND: SAND: blue gray/green, fine grained, medium dense, wet, some clay.
MW-504S	14.4	16	CL	SILTY CLAY: SILTY CLAY: brown/gray, stiff, nonplastic, moist, moderate HCL odor, blebs @ 14.5'.
MW-505D	0	5	FILL	No Sample Collected: No Sample Collected
MW-505D	5	6.7	FILL	SAND: SAND: dark brown, medium - coarse grained, subangular, very loose, wet, lots of wood chips and coal cinders.
MW-505D	6.7	9	FILL	SAND: SAND: grayish blue, fine grained, loose, wet, wood chips and coal cinders throughout.
MW-505D	9	10	FILL	SILTY CLAY: Silty CLAY: grayish blue, very soft, high plasticity, wet, trace sand, wood chips and coal cinders throughout.
MW-505D	10	19.7	CH	CLAY: CLAY: dark gray, very soft, high plasticity, wet, trace sand, wood chips throughout.
MW-505D	19.7	20	SP	SAND: SAND: white, medium - very coarse grained, subangular, loose, wet.
MW-505D	20	20.8	SC	SANDY CLAYEY SAND: Sandy Clayey SAND: white, fine grained, dense, wet.
MW-505D	20.8	21.1	SW	SAND: SAND: white, fine - coarse grained, subangular, loose, wet.
MW-505D	21.1	24.4	SC	CLAYEY SILTY SAND: Clayey Silty SAND: white, fine grained, very dense, moist, clay lenses throughout, thick clay lense @24.2 - 24.4.
MW-505D	24.4	27	SP	SAND: SAND: white, medium - coarse grained, subangular, very loose, wet.
MW-505D	27	27.5	CL	CLAY: CLAY: white, very stiff, low plasticity, moist.
MW-505D	27.5	28.1	SP	SAND: SAND: white, medium - coarse grained, subangular, dense, wet.
MW-505D	28.1	28.3	SP	SAND: SAND: brown, coarse grained, angular, medium dense, wet, slight HCL odor.
MW-505D	28.3	28.3	SAPROLITE	SAPROLITE: SAPROLITE: white, hard.

Bore	Depth1	Depth2	Lithology	Comment
MW-506BR	0	6	CL	SANDY CLAY: Sandy CLAY: orange - red, stiff, medium plasticity, moist, fine grained sand
MW-506BR	6	9	CH	SANDY CLAY: Sandy CLAY: orange - red, fine grained, medium stiff, medium - high plasticity, wet
MW-506BR	9	12.5	SC	CLAYEY SAND: Clayey SAND: light gray - brown, fine - medium grained, subrounded, medium dense, wet, gravel at 21 - 22'
MW-506BR	12.5	15	CH	CLAY: CLAY: light gray - tan, very stiff, high plasticity, wet
MW-506BR	15	16	SC	CLAYEY SAND: Clayey SAND: light gray, medium grained, subrounded, dense, no odor, wet.
MW-506BR	16	26	SP	SAND: SAND: tan, coarse grained, subrounded - rounded, loose, wet, some clay at 24.5 - 25.0 feet, well graded
MW-506BR	26	31	SP	SAND: SAND: tan, medium - coarse grained, rounded, loose, wet, some gravel.
MW-506BR	31	36	SAPROLITE	CLAY: CLAY: tan, stiff, medium plasticity, moist - dry
MW-506BR	36	46	SAPROLITE	CLAY: CLAY: white - pink, very stiff, high plasticity, wet
MW-506BR	46	56	SAPROLITE	SAPROLITE: SAPROLITE: sandy clay, green, very stiff, high plasticity, wet, relic foliation, trace small rock fragments
MW-506BR	56	61	SAPROLITE	SAPROLITE: SAPROLITE: light green - gray, dense, dry, large quartz gravel.
MW-506BR	61	81	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: multiple fractures at 65º - 85º angle, calcite on fractures.
MW-507BR	0	6	NS	No sample.
MW-507BR	6	10	CH	SILTY CLAY: Silty CLAY: tan, stiff, high plasticity, moist
MW-507BR	10	13	CH	SANDY CLAY: Sandy CLAY: tan, stiff, high plasticity, wet
MW-507BR	13	16	SC	CLAYEY SAND: Clayey SAND: tan, fine grained, dense, moist
MW-507BR	16	22	SC	CLAYEY SAND: Clayey SAND: tan, fine grained, very dense, wet
MW-507BR	22	26	SP	SAND: SAND: tan, medium - coarse grained, rounded, very loose, wet
MW-507BR	26	28	SAPROLITE	SANDY SILT: Sandy SILT: tan - gray, stiff, high plasticity, wet
MW-507BR	28	35	SAPROLITE	CLAY: CLAY: gray - brown, stiff, high plasticity, wet, trace sand
MW-507BR	35	36	SAPROLITE	SAPROLITE: SAPROLITE: clay, green, medium stiff, low plasticity, wet, trace sand
MW-507BR	36	46	SAPROLITE	SAPROLITE: SAPROLITE: sandy clay, gray - dark green, very stiff, low plasticity, moist
MW-507BR	46	56	PWR	SAPROLITE: SAPROLITE: w/ PWR, stiff, wet, grading from small gravel - sized pieces of rock to cobble - sized pieces.
MW-507BR	56	66	SAPROLITE	SAPROLITE: SAPROLITE: sandy clay, dark green, fine grained, very stiff, nonplastic - low plasticity, wet
MW-507BR	66	74	PWR	PWR: PWR: dark green, same as above with large gravel - sized pieces of rock

Bore	Depth1	Depth2	Lithology	Comment
MW-507BR	74	76	PWR	PWR: PWR: brown - green, very stiff, medium plasticity, no odor, wet.
MW-507BR	76	80	QUARTZITE	GRAVELLY QUARTZ: Gravelly QUARTZ: sandy gravel, gray, coarse grained, angular, loose, no odor, wet.
MW-507BR	80	82	SAPROLITE	SAPROLITE: SAPROLITE: gravelly clay; medium - rounded gravel, green - brown, very stiff, high plasticity, wet
MW-507BR	82	86	SAPROLITE	SAPROLITE: SAPROLITE: clay; large quartz gravel with clay at 83 - 84 feet, green, very stiff, medium plasticity, moist
MW-507BR	86	94	SAPROLITE	SAPROLITE: SAPROLITE: clay; green, hard, nonplastic, moist
MW-507BR	94	126	META-ARGILLITE	BEDROCK: META-ARGILLITE: rock fragments, highly fractured rock with abundant quartz veins at 106 - 126', parallel breaks along foliation
MW-508BR	0	4	FILL	FILL: Loose orange to black to tan silty coarse to fine sand; FROM 1.5-4 is Loose dark gray to black silty fine sand with wood and brick fragments
MW-508BR	4	5.8	ML	SANDY SILT: Firm dark gray to black Sandy SILT
MW-508BR	5.8	7	CL	SANDY CLAY: Stiff gray-green fine Sandy CLAY
MW-508BR	7	9	CL	CLAY: Very soft gray-green CLAY
MW-508BR	9	9.5	CL	SANDY CLAY: Gray Sandy CLAY
MW-508BR	9.5	17	CL	CLAY: Very soft gray slightly sandy CLAY with organics (wood fragments, peat)
MW-508BR	17	21.5	CL	CLAY: Soft to very soft gray-green slightly sandy silty CLAY with some organics
MW-508BR	21.5	22.5	SM	Silty SAND: Brown Silty micaceous medium to fine SAND
MW-508BR	22.5	25	SW	SAND: Very firm gray-green medium to fine SAND with some fine gravel
MW-508BR	25	58	SAPROLITE	SAPROLITE: Very stiff white micaceous silt, SAPROLITE texture, grading down into green SAPROLITE
MW-508BR	58	87	PHYLLITE	BEDROCK: PHYLLITE: foliated at ~ 50 angle, highly fractured
MW-509BR	0	6	NS	NO SAMPLE: No Sample
MW-509BR	6	13	SC	CLAYEY SAND: Clayey SAND: tan and gray, fine grained, medium dense, wet, slight odor
MW-509BR	13	18	CH	CLAY: CLAY: tan and gray mottling, very stiff, high plasticity, wet, moderate odor, staining throughout, trace TLM blebs 13 - 15'
MW-509BR	18	23	CH	SANDY CLAY: Sandy CLAY: tan and gray grading down to green then to gray, medium stiff - stiff, high plasticity, wet, high sweet odor, TLM bleb @ 19.5', some residual TLM 21 - 22'
MW-509BR	23	37	SAPROLITE	SAPROLITE: SAPROLITE: silty clay; gray/white grading down to greenish gray, stiff - very stiff, low plasticity, wet, relic rock fabric, slight sweet odor

Bore	Depth1	Depth2	Lithology	Comment
MW-509BR	37	40	SAPROLITE	SAPROLITE: SAPROLITE: sandy clay with gravel; dark green, very stiff - hard, low plasticity, wet grading down to moist, trace PWR small gravel sized 40 - 46', rounded quartz gravel @ 50', slight sweet odor
MW-509BR	40	46	PWR	trace PWR small gravel sized 40 - 46',
MW-509BR	46	50	PWR	trace PWR small gravel sized 40 - 46', rounded quartz gravel @ 50', slight sweet odor
MW-509BR	50	55	SAPROLITE	SAPROLITE: SAPROLITE: sandy clay with gravel; dark green, very stiff - hard, low plasticity, wet grading down to moist, trace PWR small gravel sized 40 - 46', rounded quartz gravel @ 50', slight sweet odor
MW-509BR	55	65	EPIDOTE	BEDROCK: AMPHIBOLITE: epidote rich, green, highly fractured
MW-509BR	65	70	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: grey, dense
MW-509BR	70	76	PHYLLITE	BEDROCK: PHYLLITE: foliated at ~ 70 angle, fractured along foliation
MW-510BR	0	6	NS	NO SAMPLE: No Sample
MW-510BR	6	13	CH	SANDY CLAY: Sandy CLAY: greenish gray, medium stiff, high plasticity, wet, high odor, staining 9 - 10', TLM blebs 10 - 12'
MW-510BR	13	19	CH	CLAY: CLAY: gray and tan mottling, very stiff, high plasticity, wet, high sweet odor, light staining 13 - 16', TLM blebs 16 - 19'
MW-510BR	19	23	CL	SANDY CLAY: Sandy CLAY: greenish gray, very stiff, moderate plasticity, wet, high odor, TLM blebs throughout
MW-510BR	23	25.5	SP	SAND: SAND: medium grained, subrounded - rounded, loose, wet, wood chips @ 23', high odor, saturated with residual TLM
MW-510BR	25.5	29	SAPROLITE	SILTY CLAY: Silty CLAY: light brown and gray, very stiff, low plasticity, high odor grading down to moderate sweet odor, saturated with residual TLM 25.5 - 26'
MW-510BR	29	51	SAPROLITE	SAPROLITE: SAPROLITE: silty clay; dark green, very stiff, low plasticity, moist grading down to dry, moderate odor 29 - 36', very weather rock fragments, residual TLM coating rock fragments @ 32 - 34.5'
MW-510BR	51	57.5	PWR	PWR: PWR: green rock fragments with silty clay, dry, moderate odor, TLM coating rock fragment @ 55'
MW-510BR	57.5	74	EPIDOTE	BEDROCK: AMPHIBOLITE: epidote rich, dark gray + green, fractured along foliations @ 60 degrees from horizontal, iron oxide deposits inside fractures, TLM visible under blacklight, predominantly along fractures and healed fracture
MW-510BR	74	80	PHYLLITE	BEDROCK: PHILLITE: light gray, wavy laminations
MW-511BR	0	6	NS	No Sample.

Bore	Depth1	Depth2	Lithology	Comment
MW-511BR	6	13	CH	SANDY CLAY: Sandy CLAY: tan and gray mottling, medium stiff, high plasticity, wet, large root, trace gravel, moderate odor, moderate staining
MW-511BR	13	16	CH	CLAY: CLAY: gray - tan mottling, very stiff, high plasticity, wet, trace sand, slight odor, light staining
MW-511BR	16	22	CH	CLAY: CLAY: trace sand, gray - green - tan, stiff, high plasticity, wet, high odor, trace TLM blebs at 16 - 19'
MW-511BR	22	26	CL	SILTY CLAY: Silty CLAY: white - light brown, very stiff, low plasticity, dry, moderately sweet odor
MW-511BR	26	36	SAPROLITE	SAPROLITE: SAPROLITE: silty clay; gray - brown, very stiff, medium plasticity, wet, moderate sweet odor, highly weathered TLM at 33 feet (brown with no odor)
MW-511BR	36	47	PWR	SAPROLITE: SAPROLITE: sitly clay w/PWR, light green - gray, very stiff, low plasticity, wet, trace rock fragments at 40'
MW-511BR	47	51	PWR	PWR: PWR: gray, dry, no odor, rock fragments and ground rock powder.
MW-511BR	51	54	EPIDOTE	BEDROCK: AMPHIBOLITE: epidote rich, green, weathered.
MW-511BR	54	66	EPIDOTE	BEDROCK: AMPHIBOLITE: epidote rich, green grading down to dark green
MW-511BR	66	76	EPIDOTE	BEDROCK: AMPHIBOLITE: epidote rich, dark green - black, foliation at 60º angle from horizontal.
MW-512BR	0	6	FILL	FILL: FILL: sandy gravel with clay, brown - gray, fine grained, angular, loose - medium, moist, moderate odor
MW-512BR	6	8	SP	SAND: SAND: tan, fine grained, subrounded - rounded, loose, moist, slight odor
MW-512BR	8	10	SC	CLAYEY SAND: Clayey SAND: tan - brown, fine grained, subrounded, medium dense, moist
MW-512BR	10	16	CH	SANDY CLAY: Sandy CLAY: gray and tan mottling, stiff, high plasticity, wet, some roots
MW-512BR	16	18	CH	CLAY: CLAY: gray and tan mottling, very stiff, high plasticity, wet
MW-512BR	18	22	SC	CLAYEY SAND: Clayey SAND: gray and tan mottling, fine grained, subrounded, medium dense - dense, wet
MW-512BR	22	24.5	SP	SAND: SAND: light gray, coarse, subrounded, very loose - loose, wet
MW-512BR	24.5	26	SAPROLITE	SILTY CLAY: Silty CLAY: pink - brown, stiff - very stiff, low plasticity, moist, slight odor
MW-512BR	26	33	SAPROLITE	SILTY CLAY: Silty CLAY: white - brown - light green, medium stiff, low plasticity, moderate - high odor, wet, trace rock fragments, some residual TLM at 31 - 33 feet.
MW-512BR	33	59	SAPROLITE	SAPROLITE: SAPROLITE: silty clay; brown/white/gray, stiff - very stiff at 42', nonplastic, wet, relic rock fabric, some rock fragments 46 - 56', slight odor

Bore	Depth1	Depth2	Lithology	Comment
MW-512BR	59	84	AMPHIBOLITE	BEDROCK: AMPHIBOLITE: rock recovered as cobbles 62 - 64', fractures at 64.5 and 66 feet at 60 degree angles, more healed fractures with depth angled between 55 and 85 degrees from horizontal
MW-513BR	0	4	FILL	Hand augered
MW-513BR	4	16	SM	Light brown/gray SILTY SAND, slightly moist, fine grained, no odors, no staining
MW-513BR	16	17.5	SP	Gray/brown SAND, medium grained, moist, no odors, no staining
MW-513BR	17.5	25	CL	Gray CLAY, wet, soft, no odors, no staining
MW-513BR	25	26	SW	Gray SAND, medium to coarse grained, some gravel, wet, no odors, no staining
MW-513BR	26	47.5	SAPROLITE	Blue/green SAPROLITE, no odors, no staining, dry and becoming firm and tending Gray with depth
MW-513BR	47.5	82	BEDROCK	BEDROCK, gray/black amphibolite, dense, unable to break with hand, no odors, no staining.
MW-600	0	4	FILL	Hand augered
MW-600	4	7	SM	Light brown,gray SILTY SAND, slight odor, slightly moist, fine grained, no staining
MW-600	7	17	SC	Light brown,gray CLAEY SAND, slight odor, slightly moist, fine grained, no staining
MW-600	17	25	CL	Gray CLAY, moist, firm, no odors, no staining
MW-600	25	26	SW	SAND lense medium to coarse grained, saturated with BPLM, moist strong odors
MW-600	26	32	SAPROLITE	Gray/light brown SAPROLITE, firm, slight odor, no staining, moist (water introduced by drillers)
MW-601	0	4	FILL	Hand augered
MW-601	4	7	SM	Light brown SILTY SAND, fine grained, slightly moist, no odors, no staining, fine grained sand lense at 5 feet BGS
MW-601	7	19	CL	Brown/gray SILTY CLAY, slightly firm becoming stiff at 15 feet BGS, slightly moist, slight odor, no staining
MW-601	19	26	SW	Gray SAND, medium grained (increasing coarseness with depth), wet, strong odor, sheen at 19.5 feet BGS, saturated BPLM at 25-26 feet BGS
MW-601	26	27	SAPROLITE	Gray/blue/green SAPROLITE, strong odor, no staining
MW-602	0	4	FILL	Hand augered
MW-602	4	7	SM	Light brown SILTY SAND, slightly moist, no odors, no staining
MW-602	7	16	CL	Light brown/gray SILTY CLAY, slightly moist, firm, no odors, no staining
MW-602	16	17	SP	Light brown/gray SAND lense, medium grained, slightly moist, no odors, no staining
MW-602	17	21	SM	Light brown/gray SILTY SAND W/ CLAY, slightly moist, firm, no odors, no staining

Bore	Depth1	Depth2	Lithology	Comment
MW-602	21	29	SW	Gray SAND, medium grained (increasing coarseness with depth), moist becoming wet at 27 feet BGS, slight odor, no staining
MW-602	29	32	SAPROLITE	Light gray/brown SAPROLITE, slightly moist but firm, no odors, no staining
MW-603	0	4	FILL	Hand augered
MW-603	4	7	SM	Black/brown SILTY SAND W/GRAVEL, slightly moist, loose, no odors, organic matter at 7 feet BGS, black crystalline inclusions at 6 feet BGS.
MW-603	7	14	SM	Gray/black SILTY SAND W/CLAY, black organic matter at 7-9 feet BGS, wet, no odors, no staining.
MW-603	14	15	SW	Gray SAND, wet, fine to coarse grained, no odors, no staining
MW-603	15	19	CL	Gray CLAY, moist/wet, soft, no odors, no staining
MW-603	19	23	PT	Brown/black organic material, residual BPLM, moist, strong odor
MW-603	23	27	SAPROLITE	Light gray SAPROLITE, dry, no odors, no staining
PZ-202	0	6	SM	SILTY SAND: SILTY SAND
PZ-202	6	7	SC	CLAYEY SAND: CLAYEY SAND
PZ-202	7	14	CL	SANDY CLAY: SANDY CLAY
PZ-202	14	15	SC	CLAYEY SAND: CLAYEY SAND
PZ-202	15	19	SP	SAND: SAND
PZ-202	19	25.5	SP	SAND: SAND
PZ-203	0	2	SM	SILTY SAND: SILTY SAND
PZ-203	2	10.5	ML	SANDY SILT: SANDY SILT
PZ-203	10.5	17.5	SP	SAND: SAND
PZ-203	17.5	22.5	SP	SAND: SAND
PZ-203	22.5	26	SP	SAND: SAND
PZ-204	0	3	ML	SANDY SILT: SANDY SILT
PZ-204	3	7.5	ML	SANDY SILT: SANDY SILT
PZ-204	7.5	14	SP	SAND: SAND
PZ-204	14	17.5	SP	SAND: SAND
PZ-204	17.5	26	SP	SAND: SAND
PZ-205	0	2.5	SM	SILTY SAND: SILTY SAND
PZ-205	2.5	14	ML	SANDY SILT: SANDY SILT
PZ-205	14	17.5	SP	GRAVELLY SAND: GRAVELLY SAND
PZ-205	17.5	25.5	SP	SAND: SAND

Bore	Depth1	Depth2	Lithology	Comment
RWPB-1	0	7	FILL	Use SB-110 for 0-18. Tan to light orange clayey medium SAND (Fill)
RWPB-1	7	10	FILL	Use SB-110 for 0-18. Black silty clayey SAND with black fragments (FILL)
RWPB-1	10	12	FILL	Use SB-110 for 0-18. Black silty sandy GRAVEL with by product like sheen (FILL)
RWPB-1	12	18	FILL	Use SB-110 for 0-18. Black sandy silt with brick and wood fragments, by product like odor and sheen (FILL)
RWPB-1	18	20	SW	Yellow brown well-graded SAND, wet, fine to medium grained, no odor or visible contamination.
RWPB-1	20	22	OL	Gray organic CLAY, abundant peat material, soft, wet, no odor or visible contamination.
RWPB-1	22	24	OL	Dark brown organic clay to peat, woody material, 10-15% well graded sand and pea gravel, wet, no visible contamination.
RWPB-1	24	27	SW	Dark gray interbedded peat and well-graded SAND, contains blebs of coal tar.
RWPB-1	27	28	SAPROLITE	Green, foliated Saprolite, moist to wet, HC-odor, no staining.
RWPB-4	0	18	FILL	Hand augered; primarily dark sandy gravel.
RWPB-4	18	22	NR	
RWPB-4	22	24	SW	
RWPB-4	24	29.5	PT	
RWPB-4	29.5	34	SAPROLITE	
SB-109	0	3.5	FILL	CINDERS: BLACK ASH, COAL FRAGS
SB-109	3.5	6	SM	SILTY SAND:
SB-109	6	10	SM	SAND: Light gray slightly micaceous slightly silty very fine SAND (SM)
SB-109	10	16	ML	CLAYEY SILT:
SB-109	16	22	ML	CLAYEY SILT: Light gray, dark gray and yellowish brown slightly micaceous clayey SILT to silty CLAY (ML-CL)
SB-109	22	28	CL	SANDY CLAY:
SB-501	0	3	FILL	
SB-501	3	6	FILL	
SB-501	6	9	FILL	
SB-501	9	10	CL	
SB-501	10	10.5	GW	
SB-501	10.5	14	NR	
SB-501	14	14.5	GW	
SB-501	14.5	15	ML	

Bore	Depth1	Depth2	Lithology	Comment
SB-501	15	17	ML	
SB-501	17	20	ML	
SB-501	20	30	ML	
SB-911	0	0.2	FILL	FILL: Light gray SAND, little silt. (FL)
SB-911	0.2	0.7	FILL	FILL: Approximately 6 inches of concrete. Auger through. (FL)
SB-911	0.7	4	FILL	FILL: Dark brown and black stained SAND and GRAVEL composed of coal-like and clinker-like material, trace red brick fragments, trace yellow silt, damp to wet at 3.5 ft., moderate hydrocarbon-like odor, trace black oil-like material. (FL)
SB-911	4	6	CL	SILTY CLAY: Light greenish gray and tan silty CLAY, soft, medium plasticity, damp, slight hydrocarbon-like odor. (CL)
SB-911	6	7	SM	SILTY SAND: Dark gray to black, very fine-grained, silty SAND, trace wood fragments, wet, moderate hydrocarbon-like odor, slight sheen, trace brownish orange oil-like material. (SM)
SB-911	7	10	CL	SILTY CLAY: Light gray and tan silty CLAY, trace wood fragments, soft, moderate hydrocarbon-like odor, trace orangish brown oil-like material stringers stain gloves. (CL)
SB-911	10	15	CL	SILTY CLAY: Same as above, oil-like material stringers increasing. (CL)
SB-911	15	16	ML	SILT: Gray green and tan SILT, trace fine-grained sand, little clay, trace wood fragments and roots, firm, moist, moderate hydrocarbon-like odor, trace orangish brown oil-like material stringers. (ML)
SB-911	16	19	SP	SAND: Light gray and brown, poorly-graded, medium to fine-grained SAND, little silt, little wood fragments, moderate hydrocarbon-like odor, trace oil-like material stringers. (SP)
SB-911	19	20	CL	CLAY: Light gray and brown CLAY, little silt, trace wood fragments and roots, moderate hydrocarbon-like odor, less oil-like material than above. (CL)
SB-911	20	20.5	SW	SAND: White and gray, well-graded, fine to coarse-grained SAND, trace silt, wet, strong hydrocarbon-like odor, abundant black and orangish brown oil-like material. (SW)
SB-911	20.5	21	CL	CLAY: Gray CLAY, little sand, strong hydrocarbon-like odor, little oil-like material. (CL)
SB-911	21	23	SW	SAND: White and gray, well-graded, fine to coarse-grained SAND, trace silt, wet, strong hydrocarbon-like odor, abundant black and orangish brown oil-like material. (SW)
SB-911	23	24	CL	SILTY CLAY: Light gray silty CLAY, trace fine-grained sand, trace tiny wood fragments, moderate hydrocarbon-like odor, trace oil-like material. (CL)
SB-911	24	25	SW	SAND: Another SAND lense, same as above. (SW)

Bore	Depth1	Depth2	Lithology	Comment
SB-911	25	27	CL	SILTY CLAY: Light gray and tan with minor black staining, SILT and CLAY, little fine-grained sand, firm, moderate hydrocarbon-like odor. (CL)
SB-911	27	27.8	SW	SAND: Gray and white, well-graded, fine to coarse-grained SAND, little quartz gravel, wet, trace orangish brown oil-like material. (SW)
SB-911	27.8	30	SAPROLITE	SAPROLITE: Light gray and white, clayey SILT, very firm, foliations visible, slight hydrocarbon-like odor, stringers of dark orangish brown oil-like material. (ML)
SB-914	0	0.5	FILL	
SB-914	0.5	1	FILL	
SB-914	1	6	FILL	
SB-914	6	9	CL	
SB-914	9	9.2	GW	
SB-914	9.2	12	CL	Changed to Clay - see log
SB-914	12	17	CL	Changed to Clay - see log
SB-914	17	18	PT	
SB-914	18	21.5	CL	
SB-914	21.5	24	PT	
SB-914	24	25.5	SW	
SB-914	25.5	26	PT	
SB-914	26	29	SW	
SB-914	29	30	SAPROLITE	
SB-915	0	0.5	FILL	FILL: Light tan and black SAND, trace gravel, dry, no odor. (FL)
SB-915	0.5	3	FILL	FILL: Black SILT, trace fine-grained sand, trace shale fragments and clinker-like material, very hard, no plasticity, dry, slight hydrocarbon-like odor. (FL)
SB-915	3	3.8	FILL	FILL: Black SAND and GRAVEL composed of coal-like and clinker-like material, wet, slight hydrocarbon-like odor. (FL)
SB-915	3.8	6	FILL	SILTY CLAY: Light greenish gray and tan silty CLAY, trace rootlets, firm, medium plasticity. (CL)
SB-915	6	8	CL	SILTY CLAY: Dark gray to black silty CLAY, firm, medium plasticity, slight to moderate hydrocarbon-like odor, trace yellowish orange oil-like material stains gloves. (CL)
SB-915	8	10	CL	SILTY CLAY: Greenish gray silty CLAY, trace rootlets, soft, strong hydrocarbon-like odor, trace to little oil-like material. (CL)
SB-915	10	16	CL	SILTY CLAY: Same as above, no rootlets, trace very fine-grained sand. (CL)

Bore	Depth1	Depth2	Lithology	Comment
SB-915	16	20	CL	SILTY CLAY: Gray and tan silty CLAY, trace tiny rootlets, very firm, strong hydrocarbon-like odor, trace orangish brown oil-like material. (CL)
SB-915	20	25	CL	SILTY CLAY: Same as above, no rootlets, trace to little orangish brown oil-like material, strong hydrocarbon-like odor. (CL)
SB-915	25	26	CL	SILTY CLAY: Light olive green silty CLAY, trace tiny rootlets, very firm, medium plasticity. (FL)
SB-915	26	27	CL	SILTY CLAY: Light gray green SILT and CLAY, soft, medium plasticity, little orangish brown oil-like material stains gloves, strong hydrocarbon-like odor. (CL)
SB-915	27	28	CL	SILTY CLAY: Light gray green and tan silty CLAY, very firm, strong hydrocarbon-like odor, trace oil-like material. (CL)
SB-915	28	28.5	SW	SAND: Dark brown, well-graded, fine to coarse-grained SAND, wet, very strong hydrocarbon-like odor, abundant orangish bown oil-like material stains gloves. (SW)
SB-915	28.5	30	SAPROLITE	SAPROLITE: White and tan clayey SILT, very firm, no plasticity, strong hydrocarbon-like odor. (ML)
SB-917	0	3.5	FILL	FILL: Dark gray to black SAND and SILT, little gravel composed of coal-like and clinker-like material, trace red brick fragments, dry. (FL)
SB-917	3.5	4.5	FILL	FILL: Dark black SILT, black wood fragments, trace coal-like and clinker-like material. (FL)
SB-917	4.5	7.5	FILL	FILL: Light olive gray, poorly-graded, very fine-grained SAND and SILT, wet, slight to moderate hydrocarbon-like odor, trace oil-like material at 7 ft. (FL)
SB-917	7.5	8	FILL	FILL: Light olive gray, well-graded, fine to coarse-grained SAND, little silt, wet, strong hydrocarbon-like odor, trace black to brown oil-like material stains gloves. (FL)
SB-917	8	11	CL	SILTY CLAY: Light olive gray and tan silty CLAY, trace very fine-grained sand, trace wood fragments, soft, medium plasticity, wet. (CL)
SB-917	11	12	CL	SILTY CLAY: Same as above, color change to gray. (CL)
SB-917	12	14	CL	SILTY CLAY: Same as above, trace orangish brown oil-like material. (CL)
SB-917	14	24	CL	SILTY CLAY: Same as above, wood fragments increasing, still more clay than wood. (CL)
SB-917	24	24.2	PT	PEAT: Abundant WOOD FRAGMENTS, roots and organic matter, some clay and silt, little oil-like material. (PT)
SB-917	24.2	25	CL	SILTY CLAY: Gray silty CLAY, trace very fine-grained sand, trace wood fragments, trace oil-like material. (CL)
SB-917	25	25.8	PT	PEAT: Abundant WOOD FRAGMENTS, roots, and organic matter, some clay and silt, little oil-like material. (PT)

Bore	Depth1	Depth2	Lithology	Comment
SB-917	25.8	26.5	SW	SAND: Dark orangish brown, well-graded, fine to coarse-grained SAND, wet, strong hydrocarbon-like odor, abundant orangish brown oil-like material stains gloves. (SW)
SB-917	26.5	28	SAPROLITE	SAPROLITE: Light tan and minor white clayey SILT, very firm, no plasticity, strong hydrocarbon-like odor, foliations visible, no oil-like material. (ML)
SB-918	0	1	FILL	FILL: Light brown, poorly-graded, fine-grained SAND, little to some silt, damp, no odor. (FL)
SB-918	1	3	FILL	FILL: Black SAND and GRAVEL composed of coal-like and clinker-like material, little silt, damp, no odor. (FL)
SB-918	3	6	FILL	FILL: Light gray to white SILT, trace coarse-grained sand and gravel, soft, no plasticity, wet, no odor. Slight hydrocarbon-like odor, firm at 5 ft. (FL)
SB-918	6	6.5	FILL	FILL: Light gray and olive gray silty CLAY, firm, medium plasticity, slight hydrocarbon-like odor. (FL)
SB-918	6.5	9	FILL	FILL: Black SILT, trace fine-grained sand and gravel, trace wood chips, wet, moderate hydrocarbon-like odor. Abundant wood chips and trace orangish brown oil-like material near 9 ft. (FL)
SB-918	9	10	CL	SILTY CLAY: Light gray silty CLAY, soft, wet, medium plasticity, very slight hydrocarbon-like odor. (CL)
SB-918	10	12	CL	SILTY CLAY: Light gray silty CLAY, little wood fragments and rootlets, soft, wet, medium plasticity, very slight hydrocarbon-like odor. (CL)
SB-918	12	15	CL	SILTY CLAY: Light gray silty CLAY, no wood fragments, very soft, wet medium plasticity, very slight hydrocarbon-like odor. (CL)
SB-918	15	18	CL	SILTY CLAY: Light gray silty CLAY, trace to little wood fragments and rootlets, soft, wet, medium plasticity, very slight hydrocarbon-like odor. Wood fragments and rootlets increasing to abundant at 18 ft. (CL)
SB-918	18	25.6	PT	PEAT: Dark gray and brown WOOD FRAGMENTS and CLAY, wet, very slight hydrocarbon-like odor. (PT)
SB-918	25.6	25.8	SW	SANDY GRAVEL: Dark brown, well-graded, fine to coarse-grained SAND and GRAVEL, wet, very strong hydrocarbon-like odor, some orangish brown oil-like material. (SW)
SB-918	25.8	28	SAPROLITE	SAPROLITE: Light grayish white and tan clayey SILT, very firm, strong hydrocarbon-like odor, no visible oil-like material. (ML)
SB-921	0	1	FILL	FILL: Light brown and gray SAND and SILT, little gravel, trace red brick fragments, damp, very slight hydrocarbon-like odor. (FL)

Bore	Depth1	Depth2	Lithology	Comment
SB-921	1	2.5	FILL	FILL: Black SAND and SILT, trace gravel composed of coal-like and clinker-like material. (FL)
SB-921	2.5	4	FILL	FILL: Black SAND and GRAVEL composed of coal-like and clinker-like material, wet at 3.5 ft., slight to moderate hydrocarbon-like odor. (FL)
SB-921	4	8	SP	SILTY SAND: Light olive gray and tan to black at 6 ft., poorly-graded, very fine-grained SAND, wet, slight to moderate hydrocarbon-like odor, trace rootlets and wood fragments. No wood fragments below 6 ft. (SP)
SB-921	8	11.5	SM	SILTY SAND: Olive gray, poorly-graded, very fine-grained silty SAND, wet, strong hydrocarbon-like odor, little orangish brown oil-like material stains gloves. (SM)
SB-921	11.5	13	CL	SILTY CLAY: Olive gray and tan silty CLAY, trace fine-graind sand, trace tiny rootlets, firm, medium plasticity, moderate hydrocarbon-like odor, no oil-like material. (CL)
SB-921	13	14	CL	SILTY CLAY: Same as above, no rootlets, strong hydrocarbon-like odor, trace dark orangish brown to black oil-like material. (CL)
SB-921	14	19.5	SM	SANDY SILT: Light olive gray, poorly-graded, fine-grained SAND and SILT, wet, strong hydrocarbon-like odor, trace orangish brown oil-like material. (SM)
SB-921	19.5	23	CL	SILTY CLAY: Light gray and tan silty CLAY, very firm, medium plasticity, strong hydrocarbon-like odor, no oil-like material. (CL)
SB-921	23	28	CL	SILTY CLAY: Light gray and tan silty CLAY, very firm, medium plasticity, strong hydrocarbon-like odor, little orangish brown to dark brown oil-like material stringers. (CL)
SB-921	28	28.5	SM	SANDY SILT: Well-graded, fine to coarse-grained SAND and SILT, abundant dark brown oil-like material, very strong hydrocarbon-like odor. (SM)
SB-921	28.5	30	SAPROLITE	SAPROLITE: Light whitish gray and tan clayey SILT, very firm, no plasticity, strong hydrocarbon-like odor, no oil-like material. (ML)
TLC-04D	0	3	FILL	CLAYEY SAND: Dark brown, moist, Clayey SAND, some Silt, some cinder and slag, little coal, little root fibers, little brick and angular rock fragments (1-diameter).
TLC-04D	3	7	FILL	SILTY SAND: Dark brown, wet, mucky Silty fine SAND, some Clay, little coarse sand-size slag debris, trace angular rock fragments.
TLC-04D	7	12.5	FILL	NO RECOVERY: No recovery
TLC-04D	12.5	13.7	SM	SILTY SAND: Moderate grey to greenish brown, wet, Silty fine to medium SAND, trace coarse Sand and fine Gravel

Bore	Depth1	Depth2	Lithology	Comment
TLC-04D	13.7	15	SW	SAND: Yellow brown to tan, wet, medium SAND, some fine Sand, little coarse Sand and fine Gravel, fines to more fine sand from 14.7 to 15' bgs.
TLC-04D	15	19	SW	SAND: Very light tan to white, wet, medium to coarse SAND, subangular, trace fine Gravel and heavy minerals.
TLC-04D	19	21	SW	SAND: Light brownish grey to tan, wet, medium to coarse SAND, slight gradations between medium to coarse sand zones (mostly medium sand 19-20' and mostly coarse sand 20-21' bgs)
TLC-04D	21	22	SM	SILTY SAND: Yellow brown to tan, wet, Silty medium SAND, some fine Sand.
TLC-04D	22	22.5	SW	SAND: White to light grey, wet, fine to medium SAND, some coarse Sand and fine Gravel.
TLC-04D	22.5	23.7	SC	CLAYEY SAND: Fine SAND and Clay
TLC-04D	23.7	24.1	CH	CLAY: White, stiff CLAY, highly plastic, trace iron oxide mottling.
TLC-04D	24.1	27.5	SP	SAND: White, wet, fine to medium SAND, well sorted, trace Silt
TLC-04D	27.5	28.7	SW	SAND: White, coarse SAND, trace Silt, trace fine Gravel.
TLC-04D	28.7	30	SAPROLITE	SAPROLITE: Orange brown, moist, SAPROLITE, Kaolanite, slightly mottled iron oxide staining
TLC-05D	0	3	FILL	SAND: Very dark brown to black, moist, coarse to fine gravel sized SLAG and CINDERS, trace Silt, trace wood and coal, no odor.
TLC-05D	3	7	FILL	SILT: SAA, clayey in lower 0.5 feet, color change to moderate to reddish brown.
TLC-05D	7	12.4	FILL	SAND: Dark brown, wet, SLAG, BRICK, and CINDERS, yellow fine brick, moderate sheen and HCLO from 10.8 to 11 ft bgs, some wood fragments.
TLC-05D	12.4	13.1	SM	SILTY SAND: Olive green brown, wet, Silty fine to medium SAND, little Clay, no odor.
TLC-05D	13.1	15	SW	SAND: Orange brown, wet, fine to medium SAND, gradually more medium SAND, trace fine Gravel, no odor.
TLC-05D	15	19	SW	SAND: Yellow brown to light tan, wet medium SAND, some fine and coarse Sand, little fine Gravel, no odor.
TLC-05D	19	22.3	SP	SAND: Yellow brown to tan, wet, soupy, medium to coarse SAND, angular, no odor.
TLC-05D	22.3	24	SW	GRAVELY SAND: Grey, wet, medium to coarse SAND and fine GRAVEL, trace Silt, no odor.
TLC-05D	24	26	SW	SAND: Light grey to white, wet, fine to coarse SAND, little fine Gravel, little Silt, thin bedding zones of black heavy minerals. Clayey from 24.2 to 24.6 ft and 24.9 to 25 ft bgs, no odor.

Bore	Depth1	Depth2	Lithology	Comment
TLC-06D	0	3	FILL	SAND: Very dark brown to black, dry, organic material, some roots, cinders, pieces of coal, decaying leaves, no odor.
TLC-06D	3	8.4	FILL	SAND: SAA, some brick, moist organic material ot 6.6 ft bgs, reddish brown CLAY at 6.8 ft bgs, no odor.
TLC-06D	8.4	10.6	SC	SAND, SILTY CLAY: Light brown to grey, very fine SAND to Silty CLAY, some organic material, moist, sticky, no odor.
TLC-06D	10.6	10.8	CL	SANDY CLAY: Light grey, moist, Sandy CLAY.
TLC-06D	10.8	12	CL	SILTY CLAY: (10.8 - 11 ft bgs) Light reddish brown, moist, Silty CLAY, some fine Sand.
TLC-06D	12	13.2	SP	SAND: Yellow red, wet, coarse, SAND, some fine Gravel sub-angular, no odor.
TLC-06D	13.2	14.5	SP	SAND: Medium orange yellow SAND, some black minerals.
TLC-06D	14.5	16	CL	SILTY CLAY: Black organic, Silty CLAY, some organics.
TLC-06D	16	19.2	SW	SAND: White to grey, moist, coarse, SAND, and fine Gravel, some Silt and fine Sand, black minerals and mica fragments, no odor.
TLC-06D	19.2	20.25	SP	SAND: Light grey, wet, coarse SAND and fine Gravel, some black minerals, no odor.
TLC-06D	20.25	22.4	SP	GRAVELY SAND: White to light yellow, wet, medium to coarse SAND and fine GRAVEL.
TLC-06D	22.4	23	SP	SAND: White, moist to wet, coarse SAND, sub-angular, no odor.
TLC-06D	23	27	SP	SAND: SAA, thin layer or red SAND (0.25 ft) at 25.1 ft bgs, sand becomes firmer on the bottom, less moist, no odor.
TLC-06D	27	30	SP	SAND: SAA, white, wet, firm, coarse SAND, some white to light grey CLAY (possibly top of SAPROLITE), no odor.
TLC-07D	0	3	FILL	Fill
TLC-07D	3	9	FILL	Fill
TLC-07D	9	10.5	FILL	Fill
TLC-07D	10.5	13	FILL	Fill
TLC-07D	13	13.5	FILL	Fill
TLC-07D	13.5	14	SM	
TLC-07D	14	15	ML	
TLC-07D	15	18	CL	
TLC-07D	18	23	CL	
TLC-07D	23	24.5	SP	
TLC-07D	24.5	26	ML	
TLC-07D	26	27	CL	

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
TLC-10D	0	4	FILL	Brown FILL
TLC-10D	4	8	FILL	Brown to black, wet, shiny, Cinders, red brick, strong odor throughout.
TLC-10D	8	12	FILL	Dark brown, wet. medium to strong odor, shiny FILL
TLC-10D	12	16	CL	Gray, damp, firm, Silty Clay, light staining.
TLC-10D	16	20.5	SP	White, damp, coarse to medium SAND, little roots and fine gravel, light ot moderate odor.
TLC-10D	20.5	21	CL	Red, stiff CLAY
TLC-10D	21	24	SP	Grey to yellow to white, damp, medium sand, some coarse SAND, light odors.
TLC-10D	24	28	SAPROLITE	Mottled yellow, red, white, SAPROLITE,light odor.
TLC-11D	0	4	FILL	ORGANICS: Black, dry, organic FILL, no odor.
TLC-11D	4	8	SM	SILTY SAND: Yellowish brown to dark brown, Silty SAND, some organic matter, some plastic Clay, damp at 7.95 ft bgs, no odor.
TLC-11D	8	12.2	ML	CLAYEY SILT: Light grey, mottled with orange streaks, damp, medium soft Clayey SILT, random mineral deposits throughout, no odor.
TLC-11D	12.2	14.5	ML	CLAYEY SILT: SAA, less mineral deposits.
TLC-11D	14.5	16	SC	CLAYEY SAND: Grey CLAY mixed with fine Sand, some orange mottling, no odors.
TLC-11D	16	18	SP	SAND: Greyish white, wet, well sorted, SAND, angular, no odors.
TLC-11D	18	23	SP	SAND: Greyish white, wet, well sorted, SAND, angular, no odors.
TLC-11D	23	23	SAPROLITE	SILT: SAPROLITE
TW-01	0	4	FILL	Hand augered
TW-01	4	7	SW	Brown/orange SAND, WELL GRADED, moist at 7 feet BGS, medium to coarse grained, no odors, no staining
TW-01	7	24	CL	Light brown/gray CLAY WITH SILT AND SAND, fine to medium grained, slightly moist becoming moist at 19 feet BGS, becoming firmer with depth and tight at 23 feet BGS, no odors, no staining
TW-01	24	30	SP	Gray SAND, Saturated (2" lense at 30 feet BGS) of BPLM, medium grained, compacted, moist to wet, strong odor, no staining
TW-02	0	4	FILL	Hand augered
TW-02	4	6	SP	Orange/brown SAND, fine grained, slightly moist, no odors, no staining
TW-02	6	10	SM	Gray/brown SILTY SAND, slightly moist, becoming firm with depth, no odors, no staining
TW-02	10	22	CL	Gray/brown CLAY, stiff, no odors, no staining.

Bore	Depth1	Depth2	Lithology	Comment
TW-02	22	28	SP	Light brown SAND, medium grained, moist becoming wet at 25 feet BGS, no odors, no staining
TW-02	28	29	SAPROLITE	Blue/green SAPROLITE, slightly moist, no odors, no staining
TW-03	0	4	FILL	Hand augered
TW-03	4	14	SM	Gray/brown SILTY SAND, fine to medium grained, slightly moist, trace TLM globules at 13 feet BGS, no odors, no staining
TW-03	14	17	CL	Brown/Gray SILTY CLAY, firm, slightly moist, no odors, no staining
TW-03	17	18	SM	Light brown SILTY SAND, medium grained, slightly moist, no odors, no staining
TW-03	18	27	CL	Light brown/gray SILTY CLAY, moist becoming wet at 27 feet BGS, soft becoming firm with depth, no odors, no staining
TW-03	27	29	SP	Gray SAND, medium grained, moist, strong odor, no staining
TW-04	0	4	FILL	Hand augered
TW-04	4	6	SW	Light brown SAND, well graded, dry, no odors, no staining
TW-04	6	10	SM	Brown, SILTY SAND w/ trace clay, soft, moist.
TW-04	10	19	CL	Brown/Gray CLAY, slightly moist, becoming firm with depth, no odors, no staining
TW-04	19	22	SM	Brown, SILTY SAND w/ trace clay, soft, moist.
TW-04	22	23	SP	Light brown SAND, medium grained, slightly moist, no odors, no staining
TW-04	23	25	CL	Brown/Gray SILTY CLAY, slightly moist, firm, no odors, no staining
TW-04	25	29	SW	Light brown/orange SAND, medium to coarse grained, wet, moderate Napth odor at 27', no staining
TW-04	29	32	SW	Gray SAND, wet, strong odor, some staining at 31 feet BGS
TW-04	32	34	SAPROLITE	Blue/green SAPROLITE, firm, moderate odor, no staining
TW-05	0	4	FILL	Hand augered
TW-05	4	8	SM	Brown/ orange SILTY SAND, medium stiff, dry, no odor.
TW-05	8	13	CL	Gray/brown SILTY CLAY, firm, dry, no odors, no staining
TW-05	13	15	SP	Light yellow/gray SAND, slightly moist, fine grained, no odors, no staining
TW-05	15	24	SW	Brown/gray SAND, well graded, medium grained becoming coarse with depth, wet, no odors, no staining
TW-06	0	4	FILL	Hand augered
TW-06	4	12	SM	Gray/brown SILTY SAND, some clay, fine grained, firm, no odors, no staining
TW-06	12	29	SW	Yellow/light brown SAND, fine grained becoming coarser with depth, moist to wet at 14 feet BGS, some pea gravel at 29 feet BGS

Appendix A:
Data Used for the Site Lithologic Model

Bore	Depth1	Depth2	Lithology	Comment
TW-07	0	4	FILL	Hand augered
TW-07	4	12	CL	Gray/brown SILTY CLAY, dry, no odors, no staining
TW-07	12	19	SP	Yellow/gray SAND, coarse, moist becoming wet at 15 feet BGS, no odors, no staining
TW-07	19	24	SP	Light yellow SAND, wet, coarse grained, no odors, no stainning
TW-08	0	4	FILL	Hand augered
TW-08	4	7	SP	Light brown/orange SAND, medium grained, moist, no odors, no staining
TW-08	7	15	CL	Light brown/gray SILTY CLAY, some fine sand, slightly moist, firm becoming soft with depth, no odors, no staining, organic matter (root) at 13 feet BGS
TW-08	15	16	SW	Light brown SAND, fine to medium grained, slightly moist, no odors, no staining
TW-08	16	24	CL	Light brown/gray SILTY CLAY, some fine sand, slightly moist, firm, no odors, no staining
TW-08	24	25	SAPROLITE	Blue/green/gray SAPROLITE, firm, moist, no odors, no staining
WW-2+70-R1	0	4	FILL	CLAYEY SAND: CLAYEY SAND
WW-2+70-R1	4	6	FILL	SAND: SAND
WW-2+70-R1	6	8	CL	SANDY CLAY: SANDY CLAY
WW-2+70-R1	8	9.5	SP	SAND: SAND
WW-2+70-R1	9.5	14	CL	SANDY CLAY: SANDY CLAY
WW-2+70-R1	14	15.5	CL	SANDY CLAY: SANDY CLAY
WW-2+70-R1	15.5	16.5	SC	CLAYEY SAND: CLAYEY SAND
WW-2+70-R1	16.5	20	CL	SANDY CLAY: SANDY CLAY
WW-2+70-R1	20	23.8	CL	CLAY: CLAY
WW-2+70-R1	23.8	25.5	SP	SAND: SAND
WW-2+70-R1	25.5	25.5	SAPROLITE	CLAY: CLAY

APPENDIX B

Data Used for the Site 3D Stratigraphic Model

Appendix B:
Data Used for the Site Stratigraphic Model

Bore	Depth1	Depth2	Stratigraphy
7-1+75-R1	0	5	FILL
7-1+75-R1	5	27.7	ALLUVIUM
7-1+75-R1	27.7	29.5	GALLIARD
7-1+75-R1	29.5	30	SAPROLITE
7-4+13-R2	0	7	FILL
7-4+13-R2	7	14	ALLUVIUM
7-4+13-R2	14	33	GALLIARD
7-4+13-R2	33	34	SAPROLITE
8-1+05-L1	0	9.5	FILL
8-1+05-L1	9.5	24.8	ALLUVIUM
8-1+05-L1	24.8	26.5	GALLIARD
8-1+05-L1	26.5	28	SAPROLITE
8-3+05-L1	0	15.7	FILL
8-3+05-L1	15.7	25	ALLUVIUM
8-3+05-L1	25	26	SAPROLITE
8-4+05-L1	0	8	FILL
8-4+05-L1	8	27.3	ALLUVIUM
8-4+05-L1	27.3	28	SAPROLITE
8-5+05-L1	0	10	FILL
8-5+05-L1	10	22.5	ALLUVIUM
8-5+05-L1	22.5	28	SAPROLITE
9-1+40-L2	0	6	FILL
9-1+40-L2	6	24.5	ALLUVIUM
9-1+40-L2	24.5	26	SAPROLITE
9-1+40-R1	0	4	FILL
9-1+40-R1	4	19.6	ALLUVIUM
9-1+40-R1	19.6	22	SAPROLITE
9-2+60-L1	0	5	FILL
9-2+60-L1	5	29.5	ALLUVIUM
9-2+60-L1	29.5	30	SAPROLITE
GP-201	0	21	ALLUVIUM

Bore	Depth1	Depth2	Stratigraphy
GP-201	21	22.8	GALLIARD
GP-201	22.8	24	SAPROLITE
GP-202	0	23.8	ALLUVIUM
GP-202	23.8	28	GALLIARD
GP-203C	0	23.5	ALLUVIUM
GP-203C	23.5	27.5	GALLIARD
GP-203C	27.5	29	SAPROLITE
GP-203D	0	24	ALLUVIUM
GP-203D	24	28.5	GALLIARD
GP-203D	28.5	30	SAPROLITE
GP-221A	0	21	ALLUVIUM
GP-221A	21	24.8	GALLIARD
GP-221A	24.8	27.5	SAPROLITE
GP-222	0	22.2	ALLUVIUM
GP-222	22.2	27.5	GALLIARD
GP-222	27.5	29	SAPROLITE
GP-223A	0	23	ALLUVIUM
GP-223A	23	27	GALLIARD
GP-224B	0	21.5	ALLUVIUM
GP-224B	21.5	24.9	GALLIARD
GP-224B	24.9	26	SAPROLITE
GP-224D	0	24.5	ALLUVIUM
GP-224D	24.5	26	GALLIARD
GP-224D	26	27.5	SAPROLITE
GP-224F	0	20.7	ALLUVIUM
GP-224F	20.7	27.5	GALLIARD
GP-224F	27.5	30.5	SAPROLITE
GP-224G	0	2	FILL
GP-224G	2	20	ALLUVIUM
GP-224G	20	26.5	GALLIARD
GP-224G	26.5	28	SAPROLITE

Bore	Depth1	Depth2	Stratigraphy
GP-226	0	24	ALLUVIUM
GP-226	24	24.5	GALLIARD
GP-227	0	20	ALLUVIUM
GP-227	20	24	GALLIARD
GP-228	0	20	ALLUVIUM
GP-228	20	24.5	GALLIARD
GP-228	24.5	26	SAPROLITE
GP-228B	0	24.5	ALLUVIUM
GP-228B	24.5	27.5	SAPROLITE
GP-228C	0	21	ALLUVIUM
GP-228C	21	22	GALLIARD
GP-228C	22	22.5	SAPROLITE
GP-306	0	2	FILL
GP-306	2	27	ALLUVIUM
GP-306	27	31	SAPROLITE
GP-309	0	10.5	FILL
GP-309	10.5	28.5	ALLUVIUM
GP-309	28.5	32	SAPROLITE
GP-316A	0	0.6	FILL
GP-316A	0.6	20.5	ALLUVIUM
GP-316A	20.5	29	GALLIARD
GP-316A	29	29	SAPROLITE
GP-728	0	26	ALLUVIUM
GP-728	26	27	GALLIARD
GP-728	27	28	SAPROLITE
GP-730	0	19.9	ALLUVIUM
GP-730	19.9	25.6	GALLIARD
GP-730	25.6	26	SAPROLITE
GP-756	0	22	ALLUVIUM
GP-756	22	25.9	GALLIARD
GP-756	25.9	26	SAPROLITE

Bore	Depth1	Depth2	Stratigraphy
GP-759	0	22	ALLUVIUM
GP-759	22	27.5	GALLIARD
GP-759	27.5	30	SAPROLITE
GP-770	0	24	ALLUVIUM
GP-770	24	26	GALLIARD
GP-770	26	28	SAPROLITE
GP-773	0	30	ALLUVIUM
GP-773	30	36	GALLIARD
GP-773	36	39	SAPROLITE
GP-778	0	28	ALLUVIUM
GP-778	28	36	GALLIARD
GP-778	36	36	SAPROLITE
GP-779	0	28.5	ALLUVIUM
GP-779	28.5	31	GALLIARD
GP-779	31	31	SAPROLITE
GP-784	0	4	FILL
GP-784	4	23.5	ALLUVIUM
GP-784	23.5	26.6	GALLIARD
GP-784	26.6	27	SAPROLITE
GP-785	0	3	FILL
GP-785	3	27	ALLUVIUM
GP-785	27	27.3	GALLIARD
GP-785	27.3	29	SAPROLITE
GP-906	0	2	FILL
GP-906	2	27	ALLUVIUM
GP-906	27	29	GALLIARD
GP-906	29	29	SAPROLITE
GP-926	0	3	FILL
GP-926	3	24	ALLUVIUM
GP-926	24	26	GALLIARD
GP-926	26	28	SAPROLITE

Bore	Depth1	Depth2	Stratigraphy
GP-928	0	3	FILL
GP-928	3	22.5	ALLUVIUM
GP-928	22.5	27.5	GALLIARD
GP-928	27.5	28	SAPROLITE
MW-01	0	29	ALLUVIUM
MW-01	29	30	SAPROLITE
MW-02	0	25	ALLUVIUM
MW-03	0	20	ALLUVIUM
MW-04	0	20	ALLUVIUM
MW-05	0	20	ALLUVIUM
MW-06	0	24	ALLUVIUM
MW-06	24	29	GALLIARD
MW-06	29	46.5	SAPROLITE
MW-07	0	10.3	ALLUVIUM
MW-08	0	8	FILL
MW-08	8	24	ALLUVIUM
MW-08	24	29	GALLIARD
MW-08	29	30.5	SAPROLITE
MW-09	0	10.5	FILL
MW-10	0	15.5	FILL
MW-10	15.5	29	ALLUVIUM
MW-10	29	30.5	SAPROLITE
MW-11	0	4	FILL
MW-11	4	24	ALLUVIUM
MW-11	24	30.5	SAPROLITE
MW-12	0	24	ALLUVIUM
MW-12	24	29	GALLIARD
MW-12	29	30	SAPROLITE
MW-13	0	12	ALLUVIUM
MW-14	0	16	FILL
MW-15	0	8	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-15	8	13	ALLUVIUM
MW-16	0	25.8	ALLUVIUM
MW-16	25.8	31	GALLIARD
MW-17	0	0.3	FILL
MW-17	0.3	17.3	ALLUVIUM
MW-18	0	7	FILL
MW-18	7	20	ALLUVIUM
MW-19	0	9.8	FILL
MW-19	9.8	24	ALLUVIUM
MW-20	0	8	FILL
MW-20	8	29.3	ALLUVIUM
MW-20	29.3	32	GALLIARD
MW-201	0	25	ALLUVIUM
MW-201	25	30	GALLIARD
MW-202	0	24.5	ALLUVIUM
MW-202	24.5	28	GALLIARD
MW-202DR	0	7.7	FILL
MW-202DR	7.7	24.2	ALLUVIUM
MW-202DR	24.2	29.5	GALLIARD
MW-202DR	29.5	29.5	SAPROLITE
MW-203	0	21	ALLUVIUM
MW-203	21	28	GALLIARD
MW-204	0	27.1	ALLUVIUM
MW-204	27.1	27.7	GALLIARD
MW-204	27.7	69	SAPROLITE
MW-204	69	95	BEDROCK
MW-205	0	27.1	ALLUVIUM
MW-205	27.1	28.5	GALLIARD
MW-206	0	24.9	ALLUVIUM
MW-206	24.9	29	GALLIARD
MW-207	0	4	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-207	4	22.5	ALLUVIUM
MW-207	22.5	25	GALLIARD
MW-207	25	26	SAPROLITE
MW-208	0	10	FILL
MW-208	10	16.8	ALLUVIUM
MW-209	0	7.5	FILL
MW-209	7.5	20.6	ALLUVIUM
MW-209	20.6	25.2	GALLIARD
MW-21	0	8	FILL
MW-21	8	29.8	ALLUVIUM
MW-21	29.8	30	SAPROLITE
MW-210	0	17.5	ALLUVIUM
MW-210	17.5	23	GALLIARD
MW-210	23	27	SAPROLITE
MW-211	0	2.5	FILL
MW-211	2.5	17.5	ALLUVIUM
MW-211	17.5	26	GALLIARD
MW-212	0	30	ALLUVIUM
MW-212	30	53	SAPROLITE
MW-212	53	53	BEDROCK
MW-213	0	21.5	ALLUVIUM
MW-213	21.5	24.9	GALLIARD
MW-213	24.9	63.75	SAPROLITE
MW-213	63.75	63.75	BEDROCK
MW-214	0	22.5	ALLUVIUM
MW-214	22.5	30	GALLIARD
MW-214	30	57.5	SAPROLITE
MW-214	57.5	57.5	BEDROCK
MW-22	0	22.5	ALLUVIUM
MW-22	22.5	26	GALLIARD
MW-23	0	10	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-23	10	20	ALLUVIUM
MW-23	20	25	GALLIARD
MW-23	25	26	SAPROLITE
MW-24	0	15	FILL
MW-24	15	20.5	ALLUVIUM
MW-24	20.5	25	GALLIARD
MW-24	25	25.5	SAPROLITE
MW-25	0	20.4	ALLUVIUM
MW-25	20.4	25	GALLIARD
MW-301D	0	4	FILL
MW-301D	4	24.75	ALLUVIUM
MW-301D	24.75	26.9	GALLIARD
MW-301D	26.9	28.5	SAPROLITE
MW-301S	0	4	FILL
MW-301S	4	15	ALLUVIUM
MW-302	22	27	GALLIARD
MW-302	27	28	SAPROLITE
MW-303	0	3	FILL
MW-303	3	23.75	ALLUVIUM
MW-303	23.75	30.5	GALLIARD
MW-303	30.5	31.5	SAPROLITE
MW-304	0	2	FILL
MW-304	2	25	ALLUVIUM
MW-304	25	36	GALLIARD
MW-304	36	40	SAPROLITE
MW-305	0	14	FILL
MW-305	14	27	ALLUVIUM
MW-305	27	37	GALLIARD
MW-305	37	37	SAPROLITE
MW-306	0	5.5	FILL
MW-306	5.5	24	ALLUVIUM

Bore	Depth1	Depth2	Stratigraphy
MW-306	24	26	GALLIARD
MW-306	26	53	SAPROLITE
MW-306	53	60.9	BEDROCK
MW-306BR	0	5.5	FILL
MW-306BR	5.5	24	ALLUVIUM
MW-306BR	24	26	GALLIARD
MW-306BR	26	55	SAPROLITE
MW-306BR	55	80	BEDROCK
MW-307	0	3	FILL
MW-307	3	23	ALLUVIUM
MW-307	23	27	GALLIARD
MW-307	27	52	SAPROLITE
MW-307BR	0	3	FILL
MW-307BR	3	23	ALLUVIUM
MW-307BR	23	27	GALLIARD
MW-307BR	27	47	SAPROLITE
MW-307BR	47	73.25	BEDROCK
MW-308	0	4	FILL
MW-308	4	22	ALLUVIUM
MW-308	22	27	GALLIARD
MW-308	27	50.75	SAPROLITE
MW-308BR	0	4	FILL
MW-308BR	4	22	ALLUVIUM
MW-308BR	22	27	GALLIARD
MW-308BR	27	55	SAPROLITE
MW-308BR	55	80.5	BEDROCK
MW-309	0	3	FILL
MW-309	3	23	ALLUVIUM
MW-309	23	29.25	GALLIARD
MW-309	29.25	81	SAPROLITE
MW-309BR	0	3	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-309BR	3	23	ALLUVIUM
MW-309BR	23	29.25	GALLIARD
MW-309BR	29.25	83	SAPROLITE
MW-309BR	83	108.7	BEDROCK
MW-310	0	1	FILL
MW-310	1	18	ALLUVIUM
MW-310	18	30	GALLIARD
MW-310	30	75	SAPROLITE
MW-310BR	0	1	FILL
MW-310BR	1	18	ALLUVIUM
MW-310BR	18	30	GALLIARD
MW-310BR	30	65	SAPROLITE
MW-310BR	65	90	BEDROCK
MW-311	0	24	ALLUVIUM
MW-311	24	26	GALLIARD
MW-311	26	33	SAPROLITE
MW-312	0	23	ALLUVIUM
MW-312	23	28	GALLIARD
MW-312	28	42	SAPROLITE
MW-313	0	8	FILL
MW-313	8	23	ALLUVIUM
MW-313	23	28	GALLIARD
MW-313	28	61	SAPROLITE
MW-313	61	86	BEDROCK
MW-314	0	22	ALLUVIUM
MW-314	22	27.5	GALLIARD
MW-314	27.5	42	SAPROLITE
MW-315	0	25.5	ALLUVIUM
MW-315	25.5	27.5	GALLIARD
MW-315	27.5	59.5	SAPROLITE
MW-315	59.5	84.5	BEDROCK

Bore	Depth1	Depth2	Stratigraphy
MW-316	0	3	FILL
MW-316	3	23	ALLUVIUM
MW-316	23	27	GALLIARD
MW-316	27	47	SAPROLITE
MW-316	47	119.8	BEDROCK
MW-317	0	20.4	ALLUVIUM
MW-317	20.4	27	GALLIARD
MW-317	27	41	SAPROLITE
MW-318	0	20.4	ALLUVIUM
MW-318	20.4	27	GALLIARD
MW-318	27	62	SAPROLITE
MW-318	62	87	BEDROCK
MW-319	0	20.4	ALLUVIUM
MW-319	20.4	28	GALLIARD
MW-319	28	55	SAPROLITE
MW-319	55	80	BEDROCK
MW-320	0	20.4	ALLUVIUM
MW-320	20.4	28	GALLIARD
MW-320	28	70	SAPROLITE
MW-320	70	76	BEDROCK
MW-321	0	3	FILL
MW-321	3	23	ALLUVIUM
MW-321	23	28	GALLIARD
MW-321	28	49	SAPROLITE
MW-321	49	170.2	BEDROCK
MW-322	0	3	FILL
MW-322	3	23	ALLUVIUM
MW-322	23	28	GALLIARD
MW-322	28	48.6	SAPROLITE
MW-322	48.6	86	BEDROCK
MW-323	0	3	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-323	3	23	ALLUVIUM
MW-323	23	28	GALLIARD
MW-323	28	70.5	SAPROLITE
MW-323	70.5	86	BEDROCK
MW-324	0	3	FILL
MW-324	3	23	ALLUVIUM
MW-324	23	28	GALLIARD
MW-324	28	70	SAPROLITE
MW-324	70	215	BEDROCK
MW-325	0	23	ALLUVIUM
MW-325	23	28	GALLIARD
MW-325	28	95	SAPROLITE
MW-325	95	115	BEDROCK
MW-401D	0	28	ALLUVIUM
MW-401D	28	36	GALLIARD
MW-401S	0	20.2	ALLUVIUM
MW-401SAP	0	28	ALLUVIUM
MW-401SAP	28	36	GALLIARD
MW-401SAP	36	48	SAPROLITE
MW-402D	0	5.5	FILL
MW-402D	5.5	23.9	ALLUVIUM
MW-402D	23.9	26	GALLIARD
MW-402D	26	28	SAPROLITE
MW-402S	0	5.5	FILL
MW-402S	5.5	19	ALLUVIUM
MW-404D	0	5.2	FILL
MW-404D	5.2	20.9	ALLUVIUM
MW-404D	20.9	24	SAPROLITE
MW-404DR	0	5	FILL
MW-404DR	5	21.5	ALLUVIUM
MW-404DR	21.5	21.5	SAPROLITE

Bore	Depth1	Depth2	Stratigraphy
MW-405D	0	32	ALLUVIUM
MW-407D	0	8.9	FILL
MW-407D	8.9	30.2	ALLUVIUM
MW-407D	30.2	30.5	SAPROLITE
MW-408D	0	8.3	FILL
MW-408D	8.3	30	ALLUVIUM
MW-408D	30	33	SAPROLITE
MW-408S	0	9.8	FILL
MW-408S	9.8	20	ALLUVIUM
MW-500BR	0	5.6	FILL
MW-500BR	5.6	23	ALLUVIUM
MW-500BR	23	27.6	GALLIARD
MW-500BR	27.6	64	SAPROLITE
MW-500BR	64	79	BEDROCK
MW-501S	0	5	FILL
MW-501S	5	21.5	ALLUVIUM
MW-501S	21.5	22	SAPROLITE
MW-502D	0	24.6	ALLUVIUM
MW-502D	24.6	26.2	GALLIARD
MW-502D	26.2	26.2	SAPROLITE
MW-503BR	0	32	ALLUVIUM
MW-503BR	32	54	SAPROLITE
MW-503BR	54	76	BEDROCK
MW-503D	0	24	ALLUVIUM
MW-503D	24	28.7	GALLIARD
MW-503D	28.7	28.7	SAPROLITE
MW-503S	0	20	ALLUVIUM
MW-504BR	0	31	ALLUVIUM
MW-504BR	31	58	SAPROLITE
MW-504BR	58	80	BEDROCK
MW-504D	0	5	FILL

Bore	Depth1	Depth2	Stratigraphy
MW-504D	5	24.8	ALLUVIUM
MW-504D	24.8	26.2	GALLIARD
MW-504D	26.2	26.2	SAPROLITE
MW-504S	0	5	FILL
MW-504S	5	16	ALLUVIUM
MW-505D	0	10	FILL
MW-505D	10	24.4	ALLUVIUM
MW-505D	24.4	28.3	GALLIARD
MW-505D	28.3	28.3	SAPROLITE
MW-506BR	0	26	ALLUVIUM
MW-506BR	26	31	GALLIARD
MW-506BR	31	61	SAPROLITE
MW-506BR	61	81	BEDROCK
MW-507BR	0	22	ALLUVIUM
MW-507BR	22	26	GALLIARD
MW-507BR	26	94	SAPROLITE
MW-507BR	94	126	BEDROCK
MW-508BR	0	4	FILL
MW-508BR	4	22.5	ALLUVIUM
MW-508BR	22.5	25	GALLIARD
MW-508BR	25	58	SAPROLITE
MW-508BR	58	87	BEDROCK
MW-509BR	0	23	ALLUVIUM
MW-509BR	23	55	SAPROLITE
MW-509BR	55	76	BEDROCK
MW-510BR	0	23	ALLUVIUM
MW-510BR	23	25.5	GALLIARD
MW-510BR	25.5	57.5	SAPROLITE
MW-510BR	57.5	80	BEDROCK
MW-511BR	0	26	ALLUVIUM
MW-511BR	26	51	SAPROLITE

Bore	Depth1	Depth2	Stratigraphy
MW-511BR	51	76	BEDROCK
MW-512BR	0	6	FILL
MW-512BR	6	22	ALLUVIUM
MW-512BR	22	24.5	GALLIARD
MW-512BR	24.5	59	SAPROLITE
MW-512BR	59	84	BEDROCK
MW-513BR	0	4	FILL
MW-513BR	4	25	ALLUVIUM
MW-513BR	25	26	GALLIARD
MW-513BR	26	47.5	SAPROLITE
MW-513BR	47.5	82	BEDROCK
MW-600	0	4	FILL
MW-600	4	25	ALLUVIUM
MW-600	25	26	GALLIARD
MW-600	26	32	SAPROLITE
MW-601	0	4	FILL
MW-601	4	19	ALLUVIUM
MW-601	19	26	GALLIARD
MW-601	26	27	SAPROLITE
MW-602	0	4	FILL
MW-602	4	21	ALLUVIUM
MW-602	21	29	GALLIARD
MW-602	29	32	SAPROLITE
MW-603	0	4	FILL
MW-603	4	23	ALLUVIUM
MW-603	23	27	SAPROLITE
PZ-202	0	15	ALLUVIUM
PZ-202	15	25.5	GALLIARD
PZ-203	0	17.5	ALLUVIUM
PZ-203	17.5	26	GALLIARD
PZ-204	0	14	ALLUVIUM

Bore	Depth1	Depth2	Stratigraphy
PZ-204	14	26	GALLIARD
PZ-205	0	14	ALLUVIUM
PZ-205	14	25.5	GALLIARD
SB-109	0	3.5	FILL
SB-109	3.5	28	ALLUVIUM
SB-911	0	4	FILL
SB-911	4	27	ALLUVIUM
SB-911	27	27.8	GALLIARD
SB-911	27.8	30	SAPROLITE
SB-915	0	6	FILL
SB-915	6	28	ALLUVIUM
SB-915	28	28.5	GALLIARD
SB-915	28.5	30	SAPROLITE
SB-917	0	8	FILL
SB-917	8	25.8	ALLUVIUM
SB-917	25.8	26.5	GALLIARD
SB-917	26.5	28	SAPROLITE
SB-918	0	9	FILL
SB-918	9	25.6	ALLUVIUM
SB-918	25.6	25.8	GALLIARD
SB-918	25.8	28	SAPROLITE
SB-921	0	4	FILL
SB-921	4	28	ALLUVIUM
SB-921	28	28.5	GALLIARD
SB-921	28.5	30	SAPROLITE
TLC-04D	0	12.5	FILL
TLC-04D	12.5	24.1	ALLUVIUM
TLC-04D	24.1	28.7	GALLIARD
TLC-04D	28.7	30	SAPROLITE
TLC-05D	0	12.4	FILL
TLC-05D	12.4	22.3	ALLUVIUM

Bore	Depth1	Depth2	Stratigraphy
TLC-05D	22.3	26	GALLIARD
TLC-06D	0	8.4	FILL
TLC-06D	8.4	19.2	ALLUVIUM
TLC-06D	19.2	30	GALLIARD
TLC-11D	0	4	FILL
TLC-11D	4	16	ALLUVIUM
TLC-11D	16	23	GALLIARD
TLC-11D	23	23	SAPROLITE
TW-01	0	24	ALLUVIUM
TW-01	24	30	GALLIARD
TW-02	0	22	ALLUVIUM
TW-02	22	28	GALLIARD
TW-02	28	29	SAPROLITE
TW-03	0	27	ALLUVIUM
TW-03	27	29	GALLIARD
TW-04	0	25	ALLUVIUM
TW-04	25	32	GALLIARD
TW-04	32	34	SAPROLITE
TW-05	0	15	ALLUVIUM
TW-05	15	24	GALLIARD
TW-06	0	12	ALLUVIUM
TW-06	12	29	GALLIARD
TW-07	0	12	ALLUVIUM
TW-07	12	24	GALLIARD
TW-08	0	24	ALLUVIUM
TW-08	24	25	SAPROLITE
WW-2+70-R1	0	6	FILL
WW-2+70-R1	6	23.8	ALLUVIUM
WW-2+70-R1	23.8	25.5	GALLIARD
WW-2+70-R1	25.5	25.5	SAPROLITE

APPENDIX C-2

Data Used for the Site 3D Impacts & BPLM Observation Model, Post-Remediation

Appendix C-2:

Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
10-1+20-C1	BPLM-ISS	14	16	0
10-1+20-L1	BPLM-ISS	17	23.7	0
10-1-20-R1	BPLM-ISS	12	14	0
10-2+65-C1	BPLM-ISS	6	8	0
10-2+65-L1	BPLM-ISS	9.5	12	0
10-2+65-R1	BPLM-ISS	12	15	0
10-4+35-C1	BPLM-ISS	2	8	0
11-2+25-C1	BPLM-ISS	0	7.5	0
11-2+25-R1	BPLM-ISS	13.6	14.5	0
11-2+25-R2	BPLM-ISS	18	22	0
11-4+90-C1	BPLM-ISS	0	5	0
11-5+10-C1	BPLM-ISS	4	6.5	0
7-0+75-C1	BPLM-ISS	2	4	0
7-0+75-L1	BPLM-ISS	13.2	13.4	0
7-1+75-C1	BPLM-ISS	1	2	0
7-1+75-L1	BPLM-ISS	31.5	32	0
7-1+75-R1	BPLM-ISS	29.5	30	0
7-2+75-L2	BPLM-ISS	33.5	34	0
7-2+75-L3	BPLM-ISS	24	30	0
7-3+75-L1	BPLM-ISS	32	34	1000
7-4+13-R1	BPLM-ISS	20.8	22	0
7-4+13-R2	BPLM-ISS	0	7	0
7-4+13-R2	BPLM-ISS	7	14	0
7-4+13-R2	BPLM-ISS	14	33	0
7-4+13-R2	BPLM-ISS	33	34	0
7-5+75-L1	BPLM-ISS	28	29	100000
7-5+75-R1	BPLM-ISS	0	27.4	0
7-7+75-C1	BPLM-ISS	12	14	0
7-7+75-L1	BPLM-ISS	27.5	30	100000
7-7+75-R1	BPLM-ISS	0	31	0
8-1+05-L1	BPLM-ISS	26	26.5	1000
8-1+05-L1	BPLM-ISS	26.5	28	100000
8-1+05-R1	BPLM-ISS	35.5	36	100000
8-1+05-R2	BPLM-ISS	0	32.8	0
8-1+05-R3	BPLM-ISS	0	33.8	0
8-1+05-R4	BPLM-ISS	0	34.7	0
8-2+05-C1	BPLM-ISS	0	10	0
8-3+05-C1	BPLM-ISS	0	9	0
8-3+05-L1	BPLM-ISS	25	26	0
8-3+05-R1	BPLM-ISS	19	20	0
8-4+05-L1	BPLM-ISS	24	27.3	1000
8-4+05-L1	BPLM-ISS	27.3	28	0
8-4+05-R1	BPLM-ISS	6.5	7.5	0
8-5+05-C1	BPLM-ISS	2	6	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
8-5+05-L1	BPLM-ISS	22.5	28	0
8-5+05-R1	BPLM-ISS	0	23	0
9-1+40-C1	BPLM-ISS	10	12	0
9-1+40-L2	BPLM-ISS	0	1	0
9-1+40-L2	BPLM-ISS	1	6	0
9-1+40-L2	BPLM-ISS	6	8	0
9-1+40-L2	BPLM-ISS	8	11	0
9-1+40-L2	BPLM-ISS	11	18	0
9-1+40-L2	BPLM-ISS	18	24	0
9-1+40-L2	BPLM-ISS	24	24.5	0
9-1+40-L2	BPLM-ISS	24.5	26	0
9-1+40-R1	BPLM-ISS	0	4	0
9-1+40-R1	BPLM-ISS	4	9.5	0
9-1+40-R1	BPLM-ISS	9.5	12	0
9-1+40-R1	BPLM-ISS	12	19.6	0
9-1+40-R1	BPLM-ISS	19.6	22	0
9-2+60-C1	BPLM-ISS	7	8	0
9-2+60-L1	BPLM-ISS	0	5	0
9-2+60-L1	BPLM-ISS	5	21	0
9-2+60-L1	BPLM-ISS	21	24	0
9-2+60-L1	BPLM-ISS	24	29.5	0
9-2+60-L1	BPLM-ISS	29.5	30	0
9-6+60-C1	BPLM-ISS	8	13	0
9-7+95-C1	BPLM-ISS	8	10	0
A-01	BPLM-ISS	9.5	10	0
B-02	BPLM-ISS	9	10	0
B-03	BPLM-ISS	5	10	0
B-400	BPLM-ISS	36	36	1000
C-03	BPLM-ISS	9	10	0
C-04	BPLM-ISS	2	3	0
C-06	BPLM-ISS	0	5	0
C-06	BPLM-ISS	5	6	100000
C-06	BPLM-ISS	6	8	0
C-06	BPLM-ISS	8	10	0
CB-923B	BPLM-ISS	20.5	22	1000
CB-925	BPLM-ISS	17.7	20	0
CP-01	BPLM-ISS	10	12	0
D-01	BPLM-ISS	7	10	0
D-02	BPLM-ISS	8.5	10	0
D-03	BPLM-ISS	9	10	0
D-05	BPLM-ISS	7	10	0
E-02	BPLM-ISS	8	10	0
E-04	BPLM-ISS	9	10	0
F-02	BPLM-ISS	4	5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
F-03	BPLM-ISS	9	10	0
F-05	BPLM-ISS	9	10	0
G-04	BPLM-ISS	5.5	8.5	0
GP-201	BPLM-ISS	0	1.5	0
GP-201	BPLM-ISS	1.5	8.5	0
GP-201	BPLM-ISS	8.5	10.2	0
GP-201	BPLM-ISS	10.2	13	0
GP-201	BPLM-ISS	13	16.4	0
GP-201	BPLM-ISS	16.4	19.5	0
GP-201	BPLM-ISS	19.5	20	0
GP-201	BPLM-ISS	20	21	0
GP-201	BPLM-ISS	21	22.5	0
GP-201	BPLM-ISS	22.5	22.8	0
GP-201	BPLM-ISS	22.8	24	0
GP-202	BPLM-ISS	0	5.5	0
GP-202	BPLM-ISS	5.5	11	0
GP-202	BPLM-ISS	11	14	0
GP-202	BPLM-ISS	14	16	0
GP-202	BPLM-ISS	16	20	0
GP-202	BPLM-ISS	20	23.8	0
GP-202	BPLM-ISS	23.8	28	0
GP-203C	BPLM-ISS	0	5.5	0
GP-203C	BPLM-ISS	5.5	11	0
GP-203C	BPLM-ISS	11	14	0
GP-203C	BPLM-ISS	14	16	0
GP-203C	BPLM-ISS	16	20	0
GP-203C	BPLM-ISS	20	22	0
GP-203C	BPLM-ISS	22	23.5	0
GP-203C	BPLM-ISS	23.5	27.5	0
GP-203C	BPLM-ISS	27.5	29	0
GP-203D	BPLM-ISS	0	2	0
GP-203D	BPLM-ISS	2	6	0
GP-203D	BPLM-ISS	6	24	0
GP-203D	BPLM-ISS	24	28.5	0
GP-203D	BPLM-ISS	28.5	30	0
GP-203F	BPLM-ISS	0	28	0
GP-204	BPLM-ISS	5	9	0
GP-205	BPLM-ISS	0	9	0
GP-206	BPLM-ISS	0	9	0
GP-206A	BPLM-ISS	0	9	0
GP-206B	BPLM-ISS	0	9	0
GP-210	BPLM-ISS	0	30	0
GP-212	BPLM-ISS	0	12	0
GP-213	BPLM-ISS	0	25.5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-214	BPLM-ISS	0	25.5	0
GP-215	BPLM-ISS	22.8	23	1000
GP-215	BPLM-ISS	23	27	0
GP-221	BPLM-ISS	21.1	25	1000
GP-221	BPLM-ISS	25	26.5	0
GP-221A	BPLM-ISS	24.8	27.5	1000
GP-222	BPLM-ISS	0	5	0
GP-222	BPLM-ISS	5	6.3	0
GP-222	BPLM-ISS	6.3	20	0
GP-222	BPLM-ISS	20	22.2	0
GP-222	BPLM-ISS	22.2	27.5	0
GP-222	BPLM-ISS	27.5	29	0
GP-223	BPLM-ISS	0	8	0
GP-223	BPLM-ISS	8	12	0
GP-223	BPLM-ISS	12	22	0
GP-223	BPLM-ISS	22	27.5	0
GP-223	BPLM-ISS	27.5	28	10000000
GP-223A	BPLM-ISS	0	7	0
GP-223A	BPLM-ISS	7	8.5	0
GP-223A	BPLM-ISS	8.5	10	0
GP-223A	BPLM-ISS	10	11	0
GP-223A	BPLM-ISS	11	13	0
GP-223A	BPLM-ISS	13	15	0
GP-223A	BPLM-ISS	15	17.5	0
GP-223A	BPLM-ISS	17.5	23	0
GP-223A	BPLM-ISS	23	26	0
GP-223A	BPLM-ISS	26	27	0
GP-223B	BPLM-ISS	0	27	0
GP-223C	BPLM-ISS	0	28	0
GP-224	BPLM-ISS	27.1	27.5	10000000
GP-224B	BPLM-ISS	0	6	0
GP-224B	BPLM-ISS	6	18.5	0
GP-224B	BPLM-ISS	18.5	21.5	0
GP-224B	BPLM-ISS	21.5	24.9	1000
GP-224B	BPLM-ISS	24.9	26	1000
GP-224C	BPLM-ISS	27.1	28.5	10000000
GP-224D	BPLM-ISS	0	24.5	0
GP-224D	BPLM-ISS	24.5	26	0
GP-224D	BPLM-ISS	26	27.5	0
GP-224F	BPLM-ISS	0	5	0
GP-224F	BPLM-ISS	5	6	0
GP-224F	BPLM-ISS	6	15.5	0
GP-224F	BPLM-ISS	15.5	20.7	0
GP-224F	BPLM-ISS	20.7	27.5	0

Bore	Type	Depth1	Depth2	Value
GP-224F	BPLM-ISS	27.5	30.5	0
GP-224G	BPLM-ISS	0	2	0
GP-224G	BPLM-ISS	2	4.8	0
GP-224G	BPLM-ISS	4.8	5.4	0
GP-224G	BPLM-ISS	5.4	8	0
GP-224G	BPLM-ISS	8	12	0
GP-224G	BPLM-ISS	12	15	0
GP-224G	BPLM-ISS	15	16	0
GP-224G	BPLM-ISS	16	17	0
GP-224G	BPLM-ISS	17	18.5	0
GP-224G	BPLM-ISS	18.5	20	0
GP-224G	BPLM-ISS	20	26.5	0
GP-224G	BPLM-ISS	26.5	28	0
GP-226	BPLM-ISS	0	4	0
GP-226	BPLM-ISS	4	8	0
GP-226	BPLM-ISS	8	11	0
GP-226	BPLM-ISS	11	11.5	0
GP-226	BPLM-ISS	11.5	18.5	0
GP-226	BPLM-ISS	18.5	24	0
GP-226	BPLM-ISS	24	24.5	0
GP-227	BPLM-ISS	0	4	0
GP-227	BPLM-ISS	4	14	0
GP-227	BPLM-ISS	14	18.5	0
GP-227	BPLM-ISS	18.5	20	0
GP-227	BPLM-ISS	20	24	0
GP-228	BPLM-ISS	24.5	26	1000
GP-228A	BPLM-ISS	0	24.5	0
GP-228B	BPLM-ISS	0	5	0
GP-228B	BPLM-ISS	5	11	0
GP-228B	BPLM-ISS	11	24.5	0
GP-228B	BPLM-ISS	24.5	26	0
GP-228B	BPLM-ISS	26	27.5	0
GP-228C	BPLM-ISS	0	6	0
GP-228C	BPLM-ISS	6	9	0
GP-228C	BPLM-ISS	9	18	0
GP-228C	BPLM-ISS	18	19.5	0
GP-228C	BPLM-ISS	19.5	21	0
GP-228C	BPLM-ISS	21	22	0
GP-228C	BPLM-ISS	22	22.5	0
GP-229	BPLM-ISS	0	29.5	0
GP-301	BPLM-ISS	0	26	0
GP-301A	BPLM-ISS	0	26	0
GP-301B	BPLM-ISS	0	24.3	0
GP-302	BPLM-ISS	0	24.7	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-305	BPLM-ISS	8	14	1000
GP-305	BPLM-ISS	14	21	0
GP-305	BPLM-ISS	21	27	0
GP-306	BPLM-ISS	0	2	0
GP-306	BPLM-ISS	2	8	0
GP-306	BPLM-ISS	8	11	0
GP-306	BPLM-ISS	11	15	0
GP-306	BPLM-ISS	15	23	0
GP-306	BPLM-ISS	23	25	0
GP-306	BPLM-ISS	25	27	0
GP-306	BPLM-ISS	27	31	0
GP-307	BPLM-ISS	18	22	0
GP-307A	BPLM-ISS	5.6	8	0
GP-309	BPLM-ISS	0	10.5	0
GP-309	BPLM-ISS	10.5	28.5	0
GP-309	BPLM-ISS	28.5	32	0
GP-310	BPLM-ISS	6	7	0
GP-313	BPLM-ISS	10	14.5	1000
GP-313	BPLM-ISS	14.5	27	0
GP-316A	BPLM-ISS	0	0.6	0
GP-316A	BPLM-ISS	0.6	5.4	0
GP-316A	BPLM-ISS	5.4	17.8	0
GP-316A	BPLM-ISS	17.8	20.5	0
GP-316A	BPLM-ISS	20.5	26.7	0
GP-316A	BPLM-ISS	26.7	29	0
GP-316A	BPLM-ISS	29	29	0
GP-401	BPLM-ISS	0	22.8	0
GP-402	BPLM-ISS	0	27	0
GP-402	BPLM-ISS	27	29	1000
GP-404	BPLM-ISS	27	27.9	100000
GP-404	BPLM-ISS	27.9	28	0
GP-406	BPLM-ISS	25	26	0
GP-408	BPLM-ISS	0	36	0
GP-409	BPLM-ISS	0	12	0
GP-410	BPLM-ISS	0	12	0
GP-411	BPLM-ISS	0	37.5	0
GP-411A	BPLM-ISS	0	34	0
GP-412	BPLM-ISS	0	10	0
GP-413	BPLM-ISS	0	34	0
GP-414	BPLM-ISS	0	10	0
GP-415	BPLM-ISS	0	12	0
GP-417	BPLM-ISS	0	26	0
GP-418	BPLM-ISS	25.5	26	0
GP-419	BPLM-ISS	0	28	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-421	BPLM-ISS	0	30	0
GP-422	BPLM-ISS	0	30	0
GP-424	BPLM-ISS	0	11	0
GP-425	BPLM-ISS	0	26	0
GP-427	BPLM-ISS	0	15	0
GP-428	BPLM-ISS	0	13	0
GP-430	BPLM-ISS	0	10	0
GP-431	BPLM-ISS	0	10	0
GP-432	BPLM-ISS	0	10	0
GP-433	BPLM-ISS	0	26	0
GP-437	BPLM-ISS	0	10	0
GP-440	BPLM-ISS	0	27.5	0
GP-440A	BPLM-ISS	0	10	0
GP-441	BPLM-ISS	0	10	0
GP-441A	BPLM-ISS	0	12	0
GP-442	BPLM-ISS	0	31	0
GP-443	BPLM-ISS	0	28	0
GP-500	BPLM-ISS	0	29.5	0
GP-501	BPLM-ISS	0	26	0
GP-501C	BPLM-ISS	0	26	0
GP-501D	BPLM-ISS	0	27	0
GP-501E	BPLM-ISS	0	30.2	0
GP-501F	BPLM-ISS	0	31.2	0
GP-501I	BPLM-ISS	0	28	0
GP-501K	BPLM-ISS	0	37.5	0
GP-501L	BPLM-ISS	0	1	0
GP-501L	BPLM-ISS	1	8	0
GP-501L	BPLM-ISS	8	14	0
GP-501L	BPLM-ISS	14	25	0
GP-501L	BPLM-ISS	25	27	0
GP-501L	BPLM-ISS	27	34	0
GP-501L	BPLM-ISS	34	34.1	0
GP-501M	BPLM-ISS	0	28.5	0
GP-501Q	BPLM-ISS	0	4.8	0
GP-501Q	BPLM-ISS	4.8	7.2	10000
GP-501Q	BPLM-ISS	7.2	34	0
GP-600	BPLM-ISS	0	28	0
GP-601	BPLM-ISS	0	32.6	0
GP-602	BPLM-ISS	0	30	0
GP-603	BPLM-ISS	0	18	0
GP-603A	BPLM-ISS	0	12.2	0
GP-605	BPLM-ISS	0	28.8	0
GP-606	BPLM-ISS	26.2	27.4	0
GP-607	BPLM-ISS	0	25	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-608	BPLM-ISS	0	26.4	0
GP-609	BPLM-ISS	0	28.1	0
GP-610	BPLM-ISS	0	20	0
GP-611	BPLM-ISS	26	26.8	10000000
GP-611	BPLM-ISS	26.8	28	0
GP-612	BPLM-ISS	0	26.8	0
GP-612	BPLM-ISS	26.8	28	1000
GP-613	BPLM-ISS	32	33	1000
GP-613	BPLM-ISS	33	36	0
GP-613	BPLM-ISS	36	38	0
GP-614	BPLM-ISS	0	33.7	0
GP-701	BPLM-ISS	0	30	0
GP-703	BPLM-ISS	21.5	22	1000
GP-703	BPLM-ISS	22	24	100000
GP-703	BPLM-ISS	24	26	0
GP-705	BPLM-ISS	24	26	1000
GP-715	BPLM-ISS	0	26	0
GP-716	BPLM-ISS	0	28	0
GP-717	BPLM-ISS	25	26	1000
GP-718	BPLM-ISS	0	8	0
GP-718	BPLM-ISS	8	9	0
GP-718	BPLM-ISS	9	10	0
GP-718	BPLM-ISS	10	20	0
GP-718	BPLM-ISS	20	21.5	0
GP-718	BPLM-ISS	21.5	24	1000
GP-718	BPLM-ISS	24	26.2	1000
GP-718	BPLM-ISS	26	28	0
GP-719	BPLM-ISS	24	25.3	10000
GP-719	BPLM-ISS	25.3	26	0
GP-720	BPLM-ISS	0	26	0
GP-721	BPLM-ISS	0	8	0
GP-721	BPLM-ISS	8	20	0
GP-721	BPLM-ISS	20	22	0
GP-721	BPLM-ISS	22	24	10000
GP-721	BPLM-ISS	24	26	10000
GP-722	BPLM-ISS	0	28	0
GP-723	BPLM-ISS	0	24	0
GP-724	BPLM-ISS	0	22	0
GP-725	BPLM-ISS	25	25.8	10000000
GP-725	BPLM-ISS	25.8	26	0
GP-726	BPLM-ISS	0	8.3	0
GP-726	BPLM-ISS	8.3	9.1	100000
GP-726	BPLM-ISS	9.1	10	0
GP-726	BPLM-ISS	10	16	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-726	BPLM-ISS	16	18	0
GP-726	BPLM-ISS	18	22	0
GP-726	BPLM-ISS	22	28	0
GP-727	BPLM-ISS	0	27	0
GP-728	BPLM-ISS	26	27	10000000
GP-728	BPLM-ISS	27	28	0
GP-729	BPLM-ISS	0	25	0
GP-730	BPLM-ISS	0	10	0
GP-730	BPLM-ISS	10	16	0
GP-730	BPLM-ISS	16	18	0
GP-730	BPLM-ISS	18	19.7	0
GP-730	BPLM-ISS	19.7	19.9	0
GP-730	BPLM-ISS	19.9	20	0
GP-730	BPLM-ISS	20	20.5	0
GP-730	BPLM-ISS	20.5	22	0
GP-730	BPLM-ISS	22	24	0
GP-730	BPLM-ISS	24	25.6	0
GP-730	BPLM-ISS	25.6	26	0
GP-731	BPLM-ISS	26.6	28	100000
GP-732	BPLM-ISS	22	24	100000
GP-732	BPLM-ISS	24	24.5	0
GP-733	BPLM-ISS	0	27	0
GP-734	BPLM-ISS	0	26	0
GP-735	BPLM-ISS	0	8	0
GP-735	BPLM-ISS	8	10	0
GP-735	BPLM-ISS	10	20	0
GP-735	BPLM-ISS	20	25.3	0
GP-735	BPLM-ISS	25.3	25.3	1000000
GP-735	BPLM-ISS	25.3	26	0
GP-736	BPLM-ISS	27	28	1000000
GP-737	BPLM-ISS	25.5	26	10000000
GP-738	BPLM-ISS	0	26	0
GP-739	BPLM-ISS	0	27	0
GP-740	BPLM-ISS	4	6	0
GP-741	BPLM-ISS	10	12	1000
GP-741	BPLM-ISS	12	14	0
GP-742	BPLM-ISS	6	7	0
GP-743	BPLM-ISS	0	10	0
GP-743	BPLM-ISS	6.2	6.8	0
GP-745	BPLM-ISS	8	8	0
GP-746	BPLM-ISS	22	23	100000
GP-746	BPLM-ISS	23	23.2	0
GP-746	BPLM-ISS	23.2	24	0
GP-747	BPLM-ISS	23.6	23.8	10000000

Bore	Type	Depth1	Depth2	Value
GP-747	BPLM-ISS	23.8	24	0
GP-748	BPLM-ISS	22	24	1000
GP-748	BPLM-ISS	24	25	0
GP-748	BPLM-ISS	25	26	100000
GP-749	BPLM-ISS	0	25	0
GP-750	BPLM-ISS	0	26	0
GP-751	BPLM-ISS	0	6	0
GP-751	BPLM-ISS	6	23.3	0
GP-751	BPLM-ISS	23.3	24	1000
GP-751	BPLM-ISS	24	26	0
GP-752	BPLM-ISS	26.3	26.5	1000000
GP-752	BPLM-ISS	26.5	30	0
GP-753	BPLM-ISS	0	29	0
GP-756	BPLM-ISS	0	8	0
GP-756	BPLM-ISS	8	10	0
GP-756	BPLM-ISS	10	22	0
GP-756	BPLM-ISS	22	24	1000
GP-756	BPLM-ISS	24	25.9	1000
GP-756	BPLM-ISS	25.9	26	0
GP-757	BPLM-ISS	25.2	25.6	1000000
GP-757	BPLM-ISS	25.5	26	0
GP-758	BPLM-ISS	26	28	10000
GP-759	BPLM-ISS	27	27.5	10000000
GP-759	BPLM-ISS	27.5	30	0
GP-760	BPLM-ISS	0	26	0
GP-761	BPLM-ISS	24	26.9	1000
GP-761	BPLM-ISS	26.9	27	100000
GP-761	BPLM-ISS	27	29	0
GP-762	BPLM-ISS	27.2	29	0
GP-763	BPLM-ISS	0	27	0
GP-764	BPLM-ISS	0	4	0
GP-764	BPLM-ISS	4	8	0
GP-764	BPLM-ISS	8	23	0
GP-764	BPLM-ISS	23	23.5	0
GP-764	BPLM-ISS	23.5	25	0
GP-764	BPLM-ISS	25	25.4	1000000
GP-764	BPLM-ISS	25.4	28	0
GP-764	BPLM-ISS	28	31	100000
GP-765	BPLM-ISS	0	23	0
GP-765	BPLM-ISS	23	24	0
GP-765	BPLM-ISS	24	25	1000
GP-765	BPLM-ISS	25	26	0
GP-765	BPLM-ISS	26	29	0
GP-766	BPLM-ISS	0	28	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-768	BPLM-ISS	27	28	10000000
GP-769	BPLM-ISS	0	28	0
GP-770	BPLM-ISS	0	4	0
GP-770	BPLM-ISS	4	6.5	0
GP-770	BPLM-ISS	6.5	7.2	0
GP-770	BPLM-ISS	7.2	7.5	0
GP-770	BPLM-ISS	7.5	8	0
GP-770	BPLM-ISS	8	22	0
GP-770	BPLM-ISS	22	23.5	0
GP-770	BPLM-ISS	23.5	24	0
GP-770	BPLM-ISS	24	26	0
GP-770	BPLM-ISS	26	28	0
GP-771	BPLM-ISS	0	20	0
GP-771	BPLM-ISS	20	22	0
GP-771	BPLM-ISS	22	25.5	10000
GP-771	BPLM-ISS	25.5	26	0
GP-772	BPLM-ISS	0	22	0
GP-772	BPLM-ISS	22	22.5	0
GP-772	BPLM-ISS	22.5	24	0
GP-772	BPLM-ISS	23.75	26	10000
GP-773	BPLM-ISS	0	10	0
GP-773	BPLM-ISS	10	12	0
GP-773	BPLM-ISS	12	16	0
GP-773	BPLM-ISS	16	19.5	0
GP-773	BPLM-ISS	19.5	30	0
GP-773	BPLM-ISS	30	32	0
GP-773	BPLM-ISS	32	36	0
GP-773	BPLM-ISS	36	39	1000
GP-774	BPLM-ISS	32	34	1000000
GP-775	BPLM-ISS	24	27.3	10000000
GP-775	BPLM-ISS	27.3	28	0
GP-776	BPLM-ISS	24	26	100000
GP-776	BPLM-ISS	26	28	0
GP-777	BPLM-ISS	34	36	100000
GP-778	BPLM-ISS	0	8	0
GP-778	BPLM-ISS	8	12	0
GP-778	BPLM-ISS	12	14.25	0
GP-778	BPLM-ISS	14.25	16	0
GP-778	BPLM-ISS	16	20	0
GP-778	BPLM-ISS	20	24	0
GP-778	BPLM-ISS	24	28	0
GP-778	BPLM-ISS	28	32	0
GP-778	BPLM-ISS	32	36	0
GP-778	BPLM-ISS	36	36	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-779	BPLM-ISS	0	4	0
GP-779	BPLM-ISS	4	8	0
GP-779	BPLM-ISS	8	10.5	0
GP-779	BPLM-ISS	10.5	10.6	0
GP-779	BPLM-ISS	10.6	11	0
GP-779	BPLM-ISS	11	12	0
GP-779	BPLM-ISS	12	16	0
GP-779	BPLM-ISS	16	20	0
GP-779	BPLM-ISS	20	24	0
GP-779	BPLM-ISS	24	28	0
GP-779	BPLM-ISS	28	28.5	0
GP-779	BPLM-ISS	28.5	31	0
GP-779	BPLM-ISS	31	31	0
GP-780	BPLM-ISS	0	28	0
GP-780	BPLM-ISS	28	31	1000
GP-781	BPLM-ISS	0	28	0
GP-781	BPLM-ISS	28	29	100000
GP-782	BPLM-ISS	16	20	0
GP-783	BPLM-ISS	24.75	27	0
GP-783	BPLM-ISS	25	27	0
GP-783	BPLM-ISS	27	28	0
GP-784	BPLM-ISS	0	4	0
GP-784	BPLM-ISS	4	8	0
GP-784	BPLM-ISS	8	8.25	0
GP-784	BPLM-ISS	8.25	12	0
GP-784	BPLM-ISS	12	16	1000
GP-784	BPLM-ISS	16	20	0
GP-784	BPLM-ISS	20	23.5	0
GP-784	BPLM-ISS	23.5	26.6	0
GP-784	BPLM-ISS	26.6	27	0
GP-785	BPLM-ISS	27.3	29	0
GP-786	BPLM-ISS	0	24.5	0
GP-787	BPLM-ISS	24	24.5	0
GP-788	BPLM-ISS	0	25	0
GP-788	BPLM-ISS	25	27.9	0
GP-788	BPLM-ISS	27.9	28	0
GP-789	BPLM-ISS	0	28	0
GP-901	BPLM-ISS	12	14	0
GP-902	BPLM-ISS	15.5	18	0
GP-902	BPLM-ISS	18	29	0
GP-903	BPLM-ISS	0	30	0
GP-904	BPLM-ISS	0	31	0
GP-905	BPLM-ISS	0	30	0
GP-906	BPLM-ISS	0	2	0

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
GP-906	BPLM-ISS	2	4	0
GP-906	BPLM-ISS	4	6	0
GP-906	BPLM-ISS	6	8	0
GP-906	BPLM-ISS	8	9	0
GP-906	BPLM-ISS	9	10	0
GP-906	BPLM-ISS	10	14	0
GP-906	BPLM-ISS	14	16	0
GP-906	BPLM-ISS	16	20	0
GP-906	BPLM-ISS	20	24	0
GP-906	BPLM-ISS	24	27	0
GP-906	BPLM-ISS	27	28	0
GP-906	BPLM-ISS	28	29	0
GP-906	BPLM-ISS	29	29	0
GP-907	BPLM-ISS	12	13.5	0
GP-907	BPLM-ISS	13.5	26.5	0
GP-908	BPLM-ISS	0	12	0
GP-926	BPLM-ISS	26	28	1000
GP-927	BPLM-ISS	12	14	1000
GP-927	BPLM-ISS	14	28	0
GP-928	BPLM-ISS	0	3	0
GP-928	BPLM-ISS	3	4	0
GP-928	BPLM-ISS	4	6.5	0
GP-928	BPLM-ISS	6.5	7	0
GP-928	BPLM-ISS	7	8	0
GP-928	BPLM-ISS	8	8.3	0
GP-928	BPLM-ISS	8.3	12	0
GP-928	BPLM-ISS	12	15.5	0
GP-928	BPLM-ISS	15.5	16	0
GP-928	BPLM-ISS	16	20	0
GP-928	BPLM-ISS	20	22.5	0
GP-928	BPLM-ISS	22.5	24	0
GP-928	BPLM-ISS	24	27.5	0
GP-928	BPLM-ISS	27.5	28	0
GP-929	BPLM-ISS	0	32	0
GP-932	BPLM-ISS	0	30	0
MW-01	BPLM-ISS	29	30	0
MW-02	BPLM-ISS	19	25	0
MW-03	BPLM-ISS	12	20	0
MW-04	BPLM-ISS	0.5	9	0
MW-04	BPLM-ISS	9	20	0
MW-05	BPLM-ISS	0	1	0
MW-05	BPLM-ISS	1	8	0
MW-05	BPLM-ISS	8	20	0
MW-06	BPLM-ISS	19	24	1000000

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Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-06	BPLM-ISS	24	29	1000000
MW-06	BPLM-ISS	29	34	0
MW-06	BPLM-ISS	34	46.5	0
MW-07	BPLM-ISS	0	0.3	0
MW-07	BPLM-ISS	0.3	7.5	1000
MW-07	BPLM-ISS	7.5	10.3	0
MW-08	BPLM-ISS	29	30.5	0
MW-09	BPLM-ISS	0	5	0
MW-09	BPLM-ISS	5	10.5	0
MW-10	BPLM-ISS	29	30.5	0
MW-11	BPLM-ISS	0	2	0
MW-11	BPLM-ISS	2	4	0
MW-11	BPLM-ISS	4	5	0
MW-11	BPLM-ISS	5	9	0
MW-11	BPLM-ISS	9	24	0
MW-11	BPLM-ISS	24	30.5	0
MW-12	BPLM-ISS	29	30	0
MW-13	BPLM-ISS	0	1	0
MW-13	BPLM-ISS	1	4.5	0
MW-13	BPLM-ISS	4.5	8	0
MW-13	BPLM-ISS	8	12	0
MW-14	BPLM-ISS	0	2	0
MW-14	BPLM-ISS	2	16	0
MW-15	BPLM-ISS	0	4.8	0
MW-15	BPLM-ISS	4.8	5.7	0
MW-15	BPLM-ISS	5.7	8	0
MW-15	BPLM-ISS	8	13	0
MW-16	BPLM-ISS	0	2	0
MW-16	BPLM-ISS	2	4	0
MW-16	BPLM-ISS	4	6	0
MW-16	BPLM-ISS	6	12	0
MW-16	BPLM-ISS	12	16	0
MW-16	BPLM-ISS	16	23	0
MW-16	BPLM-ISS	23	25.8	0
MW-16	BPLM-ISS	25.8	31	0
MW-17	BPLM-ISS	0	0.3	0
MW-17	BPLM-ISS	0.3	10	0
MW-17	BPLM-ISS	10	17.3	0
MW-18	BPLM-ISS	0	7	0
MW-18	BPLM-ISS	7	13.5	0
MW-18	BPLM-ISS	13.5	20	0
MW-19	BPLM-ISS	0	3	0
MW-19	BPLM-ISS	3	8	0
MW-19	BPLM-ISS	8	9.8	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-19	BPLM-ISS	9.8	12	10000
MW-19	BPLM-ISS	12	14	0
MW-19	BPLM-ISS	14	16	0
MW-19	BPLM-ISS	16	24	0
MW-20	BPLM-ISS	0	6.5	0
MW-20	BPLM-ISS	6.5	8	0
MW-20	BPLM-ISS	8	11	0
MW-20	BPLM-ISS	11	12	0
MW-20	BPLM-ISS	12	20.8	0
MW-20	BPLM-ISS	20.8	26	0
MW-20	BPLM-ISS	26	29.3	0
MW-20	BPLM-ISS	29.3	32	0
MW-201	BPLM-ISS	0	7.5	0
MW-201	BPLM-ISS	7.5	25	0
MW-201	BPLM-ISS	25	30	0
MW-202	BPLM-ISS	0	7.5	0
MW-202	BPLM-ISS	7.5	14.5	0
MW-202	BPLM-ISS	14.5	24.5	0
MW-202	BPLM-ISS	24.5	28	0
MW-202DR	BPLM-ISS	24.2	29.5	1000
MW-202DR	BPLM-ISS	29.5	29.5	0
MW-203	BPLM-ISS	0	5.5	0
MW-203	BPLM-ISS	5.5	7.5	0
MW-203	BPLM-ISS	7.5	12.5	0
MW-203	BPLM-ISS	12.5	20.5	0
MW-203	BPLM-ISS	20.5	21	0
MW-203	BPLM-ISS	21	28	0
MW-204	BPLM-ISS	0	1.5	0
MW-204	BPLM-ISS	1.5	4	0
MW-204	BPLM-ISS	4	8	0
MW-204	BPLM-ISS	8	14	0
MW-204	BPLM-ISS	14	20	0
MW-204	BPLM-ISS	20	24.5	0
MW-204	BPLM-ISS	24.5	27.1	0
MW-204	BPLM-ISS	27.1	27.7	10000000
MW-204	BPLM-ISS	27.7	69	0
MW-204	BPLM-ISS	69	95	0
MW-205	BPLM-ISS	0	1.5	0
MW-205	BPLM-ISS	1.5	4	0
MW-205	BPLM-ISS	4	8	0
MW-205	BPLM-ISS	8	14	0
MW-205	BPLM-ISS	14	20	0
MW-205	BPLM-ISS	20	24.5	0
MW-205	BPLM-ISS	24.5	27.1	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-205	BPLM-ISS	27.1	28.5	10000000
MW-206	BPLM-ISS	0	7.9	0
MW-206	BPLM-ISS	7.9	12.5	0
MW-206	BPLM-ISS	12.5	24.9	0
MW-206	BPLM-ISS	24.9	29	0
MW-207	BPLM-ISS	0	4	0
MW-207	BPLM-ISS	4	5.8	0
MW-207	BPLM-ISS	5.8	7	0
MW-207	BPLM-ISS	7	9	0
MW-207	BPLM-ISS	9	9.5	0
MW-207	BPLM-ISS	9.5	17	0
MW-207	BPLM-ISS	17	21.5	0
MW-207	BPLM-ISS	21.5	22.5	0
MW-207	BPLM-ISS	22.5	25	0
MW-207	BPLM-ISS	25	26	0
MW-208	BPLM-ISS	0	1	0
MW-208	BPLM-ISS	1	10	0
MW-208	BPLM-ISS	10	16.8	0
MW-209	BPLM-ISS	0	7.5	0
MW-209	BPLM-ISS	7.5	10	0
MW-209	BPLM-ISS	10	14.5	0
MW-209	BPLM-ISS	14.5	15	0
MW-209	BPLM-ISS	15	19.8	0
MW-209	BPLM-ISS	19.8	20.6	0
MW-209	BPLM-ISS	20.6	21	0
MW-209	BPLM-ISS	21	25.1	0
MW-209	BPLM-ISS	25.1	25.5	0
MW-209	BPLM-ISS	25.2	25.2	0
MW-21	BPLM-ISS	0	2.5	0
MW-21	BPLM-ISS	2.5	8	0
MW-21	BPLM-ISS	8	11	0
MW-21	BPLM-ISS	11	20.8	0
MW-21	BPLM-ISS	20.8	29.4	0
MW-21	BPLM-ISS	29.4	29.8	0
MW-21	BPLM-ISS	29.8	30	0
MW-210	BPLM-ISS	0	4	0
MW-210	BPLM-ISS	4	9	0
MW-210	BPLM-ISS	9	17.5	0
MW-210	BPLM-ISS	17.5	23	0
MW-210	BPLM-ISS	23	27	0
MW-211	BPLM-ISS	0	2.5	0
MW-211	BPLM-ISS	2.5	7.5	0
MW-211	BPLM-ISS	7.5	12.5	0
MW-211	BPLM-ISS	12.5	17.5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-211	BPLM-ISS	17.5	22.5	0
MW-211	BPLM-ISS	22.5	26	0
MW-22	BPLM-ISS	0	7.5	0
MW-22	BPLM-ISS	7.5	17.5	0
MW-22	BPLM-ISS	17.5	22.5	0
MW-22	BPLM-ISS	22.5	26	0
MW-23	BPLM-ISS	0	10	0
MW-23	BPLM-ISS	10	20	0
MW-23	BPLM-ISS	20	25	0
MW-23	BPLM-ISS	25	25.5	0
MW-23	BPLM-ISS	25.5	26	0
MW-24	BPLM-ISS	0	6	0
MW-24	BPLM-ISS	6	15	0
MW-24	BPLM-ISS	15	18	0
MW-24	BPLM-ISS	18	20.5	0
MW-24	BPLM-ISS	20.5	25	0
MW-24	BPLM-ISS	25	25.5	0
MW-25	BPLM-ISS	0	6	0
MW-25	BPLM-ISS	6	20.4	0
MW-25	BPLM-ISS	20.4	25	0
MW-301D	BPLM-ISS	16	20	0
MW-301D	BPLM-ISS	20	24.75	0
MW-301D	BPLM-ISS	24.75	26.9	0
MW-301D	BPLM-ISS	26.9	28.5	0
MW-301S	BPLM-ISS	12.5	13.2	0
MW-301S	BPLM-ISS	13.2	15	0
MW-302	BPLM-ISS	0	22	0
MW-302	BPLM-ISS	22	27	0
MW-302	BPLM-ISS	27	28	0
MW-303	BPLM-ISS	0	3	0
MW-303	BPLM-ISS	3	9	0
MW-303	BPLM-ISS	9	15	0
MW-303	BPLM-ISS	15	18	0
MW-303	BPLM-ISS	18	22	0
MW-303	BPLM-ISS	22	23.75	0
MW-303	BPLM-ISS	23.75	30.5	0
MW-303	BPLM-ISS	30.5	31.5	0
MW-304	BPLM-ISS	0	2	0
MW-304	BPLM-ISS	2	5	0
MW-304	BPLM-ISS	5	8.5	0
MW-304	BPLM-ISS	8.5	9.5	0
MW-304	BPLM-ISS	9.5	11.5	0
MW-304	BPLM-ISS	11.5	12.5	0
MW-304	BPLM-ISS	12.5	13.5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-304	BPLM-ISS	13.5	25	0
MW-304	BPLM-ISS	25	32	0
MW-304	BPLM-ISS	32	34	0
MW-304	BPLM-ISS	34	36	0
MW-304	BPLM-ISS	36	40	0
MW-305	BPLM-ISS	0	14	0
MW-305	BPLM-ISS	14	23	0
MW-305	BPLM-ISS	23	26	0
MW-305	BPLM-ISS	26	27	0
MW-305	BPLM-ISS	27	37	0
MW-305	BPLM-ISS	37	37	0
MW-306	BPLM-ISS	0	5.5	0
MW-306	BPLM-ISS	5.5	10	0
MW-306	BPLM-ISS	10	14	0
MW-306	BPLM-ISS	14	21	0
MW-306	BPLM-ISS	21	24	0
MW-306	BPLM-ISS	24	26	0
MW-306	BPLM-ISS	26	53	0
MW-306	BPLM-ISS	53	60.9	0
MW-306BR	BPLM-ISS	0	5.5	0
MW-306BR	BPLM-ISS	5.5	10	0
MW-306BR	BPLM-ISS	10	14	0
MW-306BR	BPLM-ISS	14	21	0
MW-306BR	BPLM-ISS	21	24	0
MW-306BR	BPLM-ISS	24	26	0
MW-306BR	BPLM-ISS	26	55	0
MW-306BR	BPLM-ISS	55	63	0
MW-306BR	BPLM-ISS	63	65	0
MW-306BR	BPLM-ISS	65	68	0
MW-306BR	BPLM-ISS	68	71	0
MW-306BR	BPLM-ISS	71	80	0
MW-307	BPLM-ISS	0	3	0
MW-307	BPLM-ISS	3	8.5	0
MW-307	BPLM-ISS	8.5	10	0
MW-307	BPLM-ISS	10	12.5	0
MW-307	BPLM-ISS	12.5	16	0
MW-307	BPLM-ISS	16	23	0
MW-307	BPLM-ISS	23	27	0
MW-307	BPLM-ISS	27	52	0
MW-307BR	BPLM-ISS	0	3	0
MW-307BR	BPLM-ISS	3	8.5	0
MW-307BR	BPLM-ISS	8.5	10	0
MW-307BR	BPLM-ISS	10	12.5	0
MW-307BR	BPLM-ISS	12.5	16	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-307BR	BPLM-ISS	16	23	0
MW-307BR	BPLM-ISS	23	27	0
MW-307BR	BPLM-ISS	27	47	0
MW-307BR	BPLM-ISS	47	73.25	0
MW-308	BPLM-ISS	27	50.75	1000
MW-308BR	BPLM-ISS	27	55	1000
MW-308BR	BPLM-ISS	55	80.5	0
MW-309	BPLM-ISS	0	3	0
MW-309	BPLM-ISS	3	9	0
MW-309	BPLM-ISS	9	15	0
MW-309	BPLM-ISS	15	18	0
MW-309	BPLM-ISS	18	23	0
MW-309	BPLM-ISS	23	25	0
MW-309	BPLM-ISS	25	29.25	0
MW-309	BPLM-ISS	29.25	81	0
MW-309BR	BPLM-ISS	0	3	0
MW-309BR	BPLM-ISS	3	9	0
MW-309BR	BPLM-ISS	9	15	0
MW-309BR	BPLM-ISS	15	18	0
MW-309BR	BPLM-ISS	18	23	0
MW-309BR	BPLM-ISS	23	25	0
MW-309BR	BPLM-ISS	25	29.25	0
MW-309BR	BPLM-ISS	29.25	83	0
MW-309BR	BPLM-ISS	83	94	0
MW-309BR	BPLM-ISS	94	101.5	0
MW-309BR	BPLM-ISS	101.5	102.5	0
MW-309BR	BPLM-ISS	102.5	108.7	0
MW-310	BPLM-ISS	0	1	0
MW-310	BPLM-ISS	1	7	100000
MW-310	BPLM-ISS	7	14	0
MW-310	BPLM-ISS	14	18	0
MW-310	BPLM-ISS	18	25	0
MW-310	BPLM-ISS	25	30	0
MW-310	BPLM-ISS	30	75	0
MW-310BR	BPLM-ISS	0	1	0
MW-310BR	BPLM-ISS	1	7	1000
MW-310BR	BPLM-ISS	7	14	0
MW-310BR	BPLM-ISS	14	18	0
MW-310BR	BPLM-ISS	18	25	0
MW-310BR	BPLM-ISS	25	30	0
MW-310BR	BPLM-ISS	30	65	0
MW-310BR	BPLM-ISS	65	69	0
MW-310BR	BPLM-ISS	69	90	0
MW-311	BPLM-ISS	0	0.7	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-311	BPLM-ISS	0.7	4	0
MW-311	BPLM-ISS	4	14	0
MW-311	BPLM-ISS	14	24	0
MW-311	BPLM-ISS	24	26	1000
MW-311	BPLM-ISS	26	33	0
MW-312	BPLM-ISS	0	2.5	0
MW-312	BPLM-ISS	2.5	8	0
MW-312	BPLM-ISS	8	11	0
MW-312	BPLM-ISS	11	20.8	0
MW-312	BPLM-ISS	20.8	23	0
MW-312	BPLM-ISS	23	28	0
MW-312	BPLM-ISS	28	42	0
MW-313	BPLM-ISS	0	2.5	0
MW-313	BPLM-ISS	2.5	8	0
MW-313	BPLM-ISS	8	11	0
MW-313	BPLM-ISS	11	20.8	0
MW-313	BPLM-ISS	20.8	23	0
MW-313	BPLM-ISS	23	28	0
MW-313	BPLM-ISS	28	61	0
MW-313	BPLM-ISS	61	67	0
MW-313	BPLM-ISS	67	86	0
MW-314	BPLM-ISS	0	1.5	0
MW-314	BPLM-ISS	1.5	2	0
MW-314	BPLM-ISS	2	3	0
MW-314	BPLM-ISS	3	4	0
MW-314	BPLM-ISS	4	7	0
MW-314	BPLM-ISS	7	21	0
MW-314	BPLM-ISS	21	22	0
MW-314	BPLM-ISS	22	25.5	0
MW-314	BPLM-ISS	25.5	27.5	0
MW-314	BPLM-ISS	27.5	28.5	0
MW-314	BPLM-ISS	28.5	29	0
MW-314	BPLM-ISS	29	42	0
MW-315	BPLM-ISS	0	1.5	0
MW-315	BPLM-ISS	1.5	2	0
MW-315	BPLM-ISS	2	3	0
MW-315	BPLM-ISS	3	4	0
MW-315	BPLM-ISS	4	7	0
MW-315	BPLM-ISS	7	21	0
MW-315	BPLM-ISS	21	22	0
MW-315	BPLM-ISS	22	25.5	0
MW-315	BPLM-ISS	25.5	27.5	0
MW-315	BPLM-ISS	27.5	28.5	0
MW-315	BPLM-ISS	28.5	59.5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-315	BPLM-ISS	59.5	84.5	0
MW-316	BPLM-ISS	0	3	0
MW-316	BPLM-ISS	3	8.5	0
MW-316	BPLM-ISS	8.5	10	0
MW-316	BPLM-ISS	10	12.5	0
MW-316	BPLM-ISS	12.5	16	0
MW-316	BPLM-ISS	16	23	0
MW-316	BPLM-ISS	23	27	0
MW-316	BPLM-ISS	27	47	0
MW-316	BPLM-ISS	47	100	0
MW-316	BPLM-ISS	100	101.7	0
MW-316	BPLM-ISS	101.7	102	0
MW-316	BPLM-ISS	102	103.5	0
MW-316	BPLM-ISS	103.5	104.25	0
MW-316	BPLM-ISS	104.25	106.5	0
MW-316	BPLM-ISS	106.5	107.25	0
MW-316	BPLM-ISS	107.25	108	0
MW-316	BPLM-ISS	108	110	0
MW-316	BPLM-ISS	110	116.25	0
MW-316	BPLM-ISS	116.25	116.5	0
MW-316	BPLM-ISS	116.5	117.8	0
MW-316	BPLM-ISS	117.8	118	0
MW-316	BPLM-ISS	118	118.4	0
MW-316	BPLM-ISS	118.4	119.8	0
MW-317	BPLM-ISS	0	10	0
MW-317	BPLM-ISS	10	20	0
MW-317	BPLM-ISS	20	20.2	0
MW-317	BPLM-ISS	20.2	20.4	0
MW-317	BPLM-ISS	20.4	24	0
MW-317	BPLM-ISS	24	27	0
MW-317	BPLM-ISS	27	41	0
MW-318	BPLM-ISS	0	10	0
MW-318	BPLM-ISS	10	20	0
MW-318	BPLM-ISS	20	20.2	0
MW-318	BPLM-ISS	20.2	20.4	0
MW-318	BPLM-ISS	20.4	24	0
MW-318	BPLM-ISS	24	27	0
MW-318	BPLM-ISS	27	62	0
MW-318	BPLM-ISS	62	72.5	0
MW-318	BPLM-ISS	72.5	75	0
MW-318	BPLM-ISS	75	83	0
MW-318	BPLM-ISS	83	87	0
MW-319	BPLM-ISS	0	10	0
MW-319	BPLM-ISS	10	20	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-319	BPLM-ISS	20	20.2	0
MW-319	BPLM-ISS	20.2	20.4	0
MW-319	BPLM-ISS	20.4	23	0
MW-319	BPLM-ISS	23	28	0
MW-319	BPLM-ISS	28	55	0
MW-319	BPLM-ISS	55	80	0
MW-320	BPLM-ISS	0	10	0
MW-320	BPLM-ISS	10	20	0
MW-320	BPLM-ISS	20	20.2	0
MW-320	BPLM-ISS	20.2	20.4	0
MW-320	BPLM-ISS	20.4	23	0
MW-320	BPLM-ISS	23	28	0
MW-320	BPLM-ISS	28	70	0
MW-320	BPLM-ISS	70	76	0
MW-321	BPLM-ISS	0	3	0
MW-321	BPLM-ISS	3	8.5	0
MW-321	BPLM-ISS	8.5	10	0
MW-321	BPLM-ISS	10	12.5	0
MW-321	BPLM-ISS	12.5	16	0
MW-321	BPLM-ISS	16	23	0
MW-321	BPLM-ISS	23	28	0
MW-321	BPLM-ISS	28	49	0
MW-321	BPLM-ISS	49	170.2	0
MW-322	BPLM-ISS	0	3	0
MW-322	BPLM-ISS	3	8.5	0
MW-322	BPLM-ISS	8.5	10	0
MW-322	BPLM-ISS	10	12.5	0
MW-322	BPLM-ISS	12.5	16	0
MW-322	BPLM-ISS	16	23	0
MW-322	BPLM-ISS	23	28	0
MW-322	BPLM-ISS	28	48.6	0
MW-322	BPLM-ISS	48.6	86	0
MW-323	BPLM-ISS	0	3	0
MW-323	BPLM-ISS	3	8.5	0
MW-323	BPLM-ISS	8.5	10	0
MW-323	BPLM-ISS	10	12.5	0
MW-323	BPLM-ISS	12.5	16	0
MW-323	BPLM-ISS	16	23	0
MW-323	BPLM-ISS	23	28	0
MW-323	BPLM-ISS	28	70.5	0
MW-323	BPLM-ISS	70.5	86	0
MW-324	BPLM-ISS	0	3	0
MW-324	BPLM-ISS	3	8.5	0
MW-324	BPLM-ISS	8.5	10	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-324	BPLM-ISS	10	12.5	0
MW-324	BPLM-ISS	12.5	16	0
MW-324	BPLM-ISS	16	23	0
MW-324	BPLM-ISS	23	28	0
MW-324	BPLM-ISS	28	70	0
MW-324	BPLM-ISS	70	215	0
MW-325	BPLM-ISS	0	2.5	0
MW-325	BPLM-ISS	2.5	8	0
MW-325	BPLM-ISS	8	11	0
MW-325	BPLM-ISS	11	20.8	0
MW-325	BPLM-ISS	20.8	23	0
MW-325	BPLM-ISS	23	28	0
MW-325	BPLM-ISS	28	95	0
MW-325	BPLM-ISS	95	115	0
MW-401D	BPLM-ISS	34	36	100000
MW-401S	BPLM-ISS	0	8	0
MW-401S	BPLM-ISS	8	20.2	0
MW-401SAP	BPLM-ISS	35.5	36	0
MW-401SAP	BPLM-ISS	36	48	0
MW-402D	BPLM-ISS	0	2	0
MW-402D	BPLM-ISS	2	5.5	0
MW-402D	BPLM-ISS	5.5	6	0
MW-402D	BPLM-ISS	6	8	0
MW-402D	BPLM-ISS	8	10.2	0
MW-402D	BPLM-ISS	10.2	11.1	0
MW-402D	BPLM-ISS	11.1	12.7	0
MW-402D	BPLM-ISS	12.7	13.3	0
MW-402D	BPLM-ISS	13.3	14	0
MW-402D	BPLM-ISS	14	16	0
MW-402D	BPLM-ISS	16	18	0
MW-402D	BPLM-ISS	18	22.6	0
MW-402D	BPLM-ISS	22.6	23.9	0
MW-402D	BPLM-ISS	23.9	24	0
MW-402D	BPLM-ISS	24	26	0
MW-402D	BPLM-ISS	26	28	0
MW-402S	BPLM-ISS	0	2	0
MW-402S	BPLM-ISS	2	5.5	0
MW-402S	BPLM-ISS	5.5	6	0
MW-402S	BPLM-ISS	6	8	0
MW-402S	BPLM-ISS	8	10	0
MW-402S	BPLM-ISS	10	19	0
MW-404D	BPLM-ISS	0	4	0
MW-404D	BPLM-ISS	4	5.2	0
MW-404D	BPLM-ISS	5.2	5.6	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-404D	BPLM-ISS	5.6	8	0
MW-404D	BPLM-ISS	8	10	0
MW-404D	BPLM-ISS	10	12	0
MW-404D	BPLM-ISS	12	15.9	0
MW-404D	BPLM-ISS	15.9	16	0
MW-404D	BPLM-ISS	16	18	0
MW-404D	BPLM-ISS	18	20.7	0
MW-404D	BPLM-ISS	20.7	20.9	0
MW-404D	BPLM-ISS	20.9	22	0
MW-404D	BPLM-ISS	22	22.6	0
MW-404D	BPLM-ISS	22.6	23.7	0
MW-404D	BPLM-ISS	23.7	24	0
MW-404DR	BPLM-ISS	0	5	0
MW-404DR	BPLM-ISS	5	6	0
MW-404DR	BPLM-ISS	6	8	0
MW-404DR	BPLM-ISS	8	11.4	0
MW-404DR	BPLM-ISS	11.4	13.4	0
MW-404DR	BPLM-ISS	13.4	18.8	0
MW-404DR	BPLM-ISS	18.8	20	0
MW-404DR	BPLM-ISS	20	21.5	0
MW-404DR	BPLM-ISS	21.5	21.5	0
MW-405D	BPLM-ISS	0	2	0
MW-405D	BPLM-ISS	2	3.5	0
MW-405D	BPLM-ISS	3.5	4.9	0
MW-405D	BPLM-ISS	4.9	5.45	0
MW-405D	BPLM-ISS	5.45	6	0
MW-405D	BPLM-ISS	6	9.7	0
MW-405D	BPLM-ISS	9.7	10	0
MW-405D	BPLM-ISS	10	12.6	0
MW-405D	BPLM-ISS	12.6	13.1	0
MW-405D	BPLM-ISS	13.1	13.45	0
MW-405D	BPLM-ISS	13.45	14.75	0
MW-405D	BPLM-ISS	14.75	32	0
MW-407D	BPLM-ISS	0	1.25	0
MW-407D	BPLM-ISS	1.25	2.15	0
MW-407D	BPLM-ISS	2.15	6.75	0
MW-407D	BPLM-ISS	6.75	6.95	0
MW-407D	BPLM-ISS	6.95	8.1	0
MW-407D	BPLM-ISS	8.1	8.9	0
MW-407D	BPLM-ISS	8.9	10.15	0
MW-407D	BPLM-ISS	10.15	11.8	0
MW-407D	BPLM-ISS	11.8	12.4	0
MW-407D	BPLM-ISS	12.4	20.1	0
MW-407D	BPLM-ISS	20.1	24.45	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-407D	BPLM-ISS	24.45	25	0
MW-407D	BPLM-ISS	25	27	0
MW-407D	BPLM-ISS	27	30.2	0
MW-407D	BPLM-ISS	30.2	30.5	0
MW-408D	BPLM-ISS	0	2	0
MW-408D	BPLM-ISS	2	4.7	0
MW-408D	BPLM-ISS	4.7	5.05	0
MW-408D	BPLM-ISS	5.05	6	0
MW-408D	BPLM-ISS	6	8	0
MW-408D	BPLM-ISS	8	8.3	0
MW-408D	BPLM-ISS	8.3	9.8	0
MW-408D	BPLM-ISS	9.8	10.4	0
MW-408D	BPLM-ISS	10.4	10.85	0
MW-408D	BPLM-ISS	10.85	11	0
MW-408D	BPLM-ISS	11	13.4	0
MW-408D	BPLM-ISS	13.4	13.6	0
MW-408D	BPLM-ISS	13.6	19	0
MW-408D	BPLM-ISS	19	30	0
MW-408D	BPLM-ISS	30	31	0
MW-408D	BPLM-ISS	31	31.8	0
MW-408D	BPLM-ISS	31.8	33	0
MW-408S	BPLM-ISS	0	2	0
MW-408S	BPLM-ISS	2	4.7	0
MW-408S	BPLM-ISS	4.7	5.05	0
MW-408S	BPLM-ISS	5.05	6	0
MW-408S	BPLM-ISS	6	8	0
MW-408S	BPLM-ISS	8	9.8	0
MW-408S	BPLM-ISS	9.8	10.85	0
MW-408S	BPLM-ISS	10.85	11	0
MW-408S	BPLM-ISS	11	13.4	0
MW-408S	BPLM-ISS	13.4	13.6	0
MW-408S	BPLM-ISS	13.6	19	0
MW-408S	BPLM-ISS	19	20	0
MW-500BR	BPLM-ISS	0	5	0
MW-500BR	BPLM-ISS	5	5.6	0
MW-500BR	BPLM-ISS	5.6	8.1	0
MW-500BR	BPLM-ISS	8.1	10	0
MW-500BR	BPLM-ISS	10	23	0
MW-500BR	BPLM-ISS	23	25	0
MW-500BR	BPLM-ISS	25	27.6	0
MW-500BR	BPLM-ISS	27.6	28	0
MW-500BR	BPLM-ISS	28	29.2	0
MW-500BR	BPLM-ISS	29.2	35	0
MW-500BR	BPLM-ISS	35	64	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-500BR	BPLM-ISS	64	79	10000
MW-501S	BPLM-ISS	0	5	0
MW-501S	BPLM-ISS	5	6	0
MW-501S	BPLM-ISS	6	8	0
MW-501S	BPLM-ISS	8	10	0
MW-501S	BPLM-ISS	10	11.4	0
MW-501S	BPLM-ISS	11.4	13.4	0
MW-501S	BPLM-ISS	13.4	18.8	0
MW-501S	BPLM-ISS	18.8	20	0
MW-501S	BPLM-ISS	20	21.5	0
MW-501S	BPLM-ISS	21.5	22	0
MW-502D	BPLM-ISS	26.2	26.2	0
MW-503BR	BPLM-ISS	55	66	100000
MW-503BR	BPLM-ISS	66	76	0
MW-503D	BPLM-ISS	28.7	28.7	1000
MW-503S	BPLM-ISS	26.5	28.7	10000
MW-504BR	BPLM-ISS	26	31	1000
MW-504BR	BPLM-ISS	31	40	0
MW-504BR	BPLM-ISS	40	46	0
MW-504BR	BPLM-ISS	46	58	0
MW-504BR	BPLM-ISS	58	66	0
MW-504BR	BPLM-ISS	66	74	0
MW-504BR	BPLM-ISS	74	80	0
MW-504D	BPLM-ISS	22.5	24.8	1000000
MW-504D	BPLM-ISS	24.8	26.2	1000000
MW-504D	BPLM-ISS	26.2	26.2	0
MW-504S	BPLM-ISS	0	5	0
MW-504S	BPLM-ISS	5	8	0
MW-504S	BPLM-ISS	8	9.2	0
MW-504S	BPLM-ISS	9.2	10	0
MW-504S	BPLM-ISS	10	14.4	0
MW-504S	BPLM-ISS	14.4	16	1000000
MW-505D	BPLM-ISS	0	5	0
MW-505D	BPLM-ISS	5	6.7	0
MW-505D	BPLM-ISS	6.7	9	0
MW-505D	BPLM-ISS	9	10	0
MW-505D	BPLM-ISS	10	19.7	0
MW-505D	BPLM-ISS	19.7	20	0
MW-505D	BPLM-ISS	20	20.8	0
MW-505D	BPLM-ISS	20.8	21.1	0
MW-505D	BPLM-ISS	21.1	24.4	0
MW-505D	BPLM-ISS	24.4	27	0
MW-505D	BPLM-ISS	27	27.5	0
MW-505D	BPLM-ISS	27.5	28.1	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-505D	BPLM-ISS	28.1	28.3	1000
MW-505D	BPLM-ISS	28.3	28.3	0
MW-506BR	BPLM-ISS	0	6	0
MW-506BR	BPLM-ISS	6	9	0
MW-506BR	BPLM-ISS	9	12.5	0
MW-506BR	BPLM-ISS	12.5	15	0
MW-506BR	BPLM-ISS	15	16	0
MW-506BR	BPLM-ISS	16	26	0
MW-506BR	BPLM-ISS	26	31	0
MW-506BR	BPLM-ISS	31	36	0
MW-506BR	BPLM-ISS	36	46	0
MW-506BR	BPLM-ISS	46	56	0
MW-506BR	BPLM-ISS	56	61	0
MW-506BR	BPLM-ISS	61	81	0
MW-507BR	BPLM-ISS	0	6	0
MW-507BR	BPLM-ISS	6	10	0
MW-507BR	BPLM-ISS	10	13	0
MW-507BR	BPLM-ISS	13	16	0
MW-507BR	BPLM-ISS	16	22	0
MW-507BR	BPLM-ISS	22	26	0
MW-507BR	BPLM-ISS	26	28	0
MW-507BR	BPLM-ISS	28	35	0
MW-507BR	BPLM-ISS	35	36	0
MW-507BR	BPLM-ISS	36	46	0
MW-507BR	BPLM-ISS	46	56	0
MW-507BR	BPLM-ISS	56	66	0
MW-507BR	BPLM-ISS	66	74	0
MW-507BR	BPLM-ISS	74	76	0
MW-507BR	BPLM-ISS	76	80	0
MW-507BR	BPLM-ISS	80	82	0
MW-507BR	BPLM-ISS	82	86	0
MW-507BR	BPLM-ISS	86	94	0
MW-507BR	BPLM-ISS	94	126	0
MW-508BR	BPLM-ISS	0	4	0
MW-508BR	BPLM-ISS	4	5.8	0
MW-508BR	BPLM-ISS	5.8	7	0
MW-508BR	BPLM-ISS	7	9	0
MW-508BR	BPLM-ISS	9	9.5	0
MW-508BR	BPLM-ISS	9.5	17	0
MW-508BR	BPLM-ISS	17	21.5	0
MW-508BR	BPLM-ISS	21.5	22.5	0
MW-508BR	BPLM-ISS	22.5	25	0
MW-508BR	BPLM-ISS	25	58	0
MW-508BR	BPLM-ISS	58	87	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
MW-509BR	BPLM-ISS	37	40	0
MW-509BR	BPLM-ISS	40	46	0
MW-509BR	BPLM-ISS	46	50	0
MW-509BR	BPLM-ISS	50	51	1000
MW-509BR	BPLM-ISS	51	55	0
MW-509BR	BPLM-ISS	55	65	0
MW-509BR	BPLM-ISS	65	70	0
MW-509BR	BPLM-ISS	70	76	0
MW-510BR	BPLM-ISS	57.5	74	100000
MW-510BR	BPLM-ISS	74	80	0
MW-511BR	BPLM-ISS	36	47	0
MW-511BR	BPLM-ISS	47	51	0
MW-511BR	BPLM-ISS	51	54	0
MW-511BR	BPLM-ISS	54	66	0
MW-511BR	BPLM-ISS	66	76	0
MW-512BR	BPLM-ISS	33	59	1000
MW-512BR	BPLM-ISS	59	84	0
MW-513BR	BPLM-ISS	0	82	0
MW-600	BPLM-ISS	0	4	1000
MW-600	BPLM-ISS	4	7	0
MW-600	BPLM-ISS	7	17	1000
MW-600	BPLM-ISS	17	25	0
MW-600	BPLM-ISS	25	26	10000000
MW-600	BPLM-ISS	26	32	1000
MW-601	BPLM-ISS	0	7	0
MW-601	BPLM-ISS	7	19	1000
MW-601	BPLM-ISS	19	19.5	10000
MW-601	BPLM-ISS	19.5	25	100000
MW-601	BPLM-ISS	25	26	10000000
MW-601	BPLM-ISS	26	27	10000
MW-602	BPLM-ISS	0	21	0
MW-602	BPLM-ISS	21	29	1000
MW-602	BPLM-ISS	29	32	0
MW-603	BPLM-ISS	0	19	0
MW-603	BPLM-ISS	19	23	1000000
MW-603	BPLM-ISS	23	27	0
PZ-202	BPLM-ISS	0	6	0
PZ-202	BPLM-ISS	6	7	0
PZ-202	BPLM-ISS	7	14	0
PZ-202	BPLM-ISS	14	15	0
PZ-202	BPLM-ISS	15	19	0
PZ-202	BPLM-ISS	19	25.5	0
PZ-203	BPLM-ISS	0	2	0
PZ-203	BPLM-ISS	2	10.5	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
PZ-203	BPLM-ISS	10.5	17.5	0
PZ-203	BPLM-ISS	17.5	22.5	0
PZ-203	BPLM-ISS	22.5	26	0
PZ-204	BPLM-ISS	0	3	0
PZ-204	BPLM-ISS	3	7.5	0
PZ-204	BPLM-ISS	7.5	14	0
PZ-204	BPLM-ISS	14	17.5	0
PZ-204	BPLM-ISS	17.5	26	0
PZ-205	BPLM-ISS	0	2.5	0
PZ-205	BPLM-ISS	2.5	14	0
PZ-205	BPLM-ISS	14	17.5	0
PZ-205	BPLM-ISS	17.5	25.5	0
RW-01	BPLM-ISS	0	29.5	0
RW-01	BPLM-ISS	29.5	30	0
RWPB-1	BPLM-ISS	27	28	1000
RWPB-2	BPLM-ISS	0	25	0
RWPB-2	BPLM-ISS	25	26	10000
RWPB-3	BPLM-ISS	0	25.6	0
RWPB-3	BPLM-ISS	25.6	26	0
RWPB-4	BPLM-ISS	29.5	30	0
RWSB-1	BPLM-ISS	0	27	0
RWSB-1	BPLM-ISS	27	28	1000
RWSB-2	BPLM-ISS	0	25	0
RWSB-2	BPLM-ISS	25	26	0
SB-02	BPLM-ISS	0	4	0
SB-09	BPLM-ISS	10	12	0
SB-109	BPLM-ISS	0	3.5	0
SB-109	BPLM-ISS	3.5	6	0
SB-109	BPLM-ISS	6	10	0
SB-109	BPLM-ISS	10	16	0
SB-109	BPLM-ISS	16	22	0
SB-109	BPLM-ISS	22	28	0
SB-110	BPLM-ISS	23.5	26	0
SB-23	BPLM-ISS	8	12	0
SB-37	BPLM-ISS	0	8	0
SB-38	BPLM-ISS	0	8	0
SB-40	BPLM-ISS	0	8	0
SB-501	BPLM-ISS	20	30	0
SB-502	BPLM-ISS	0	30	0
SB-701	BPLM-ISS	5	8	0
SB-702	BPLM-ISS	10	12	0
SB-801	BPLM-ISS	0	4	0
SB-802	BPLM-ISS	0	4	0
SB-803	BPLM-ISS	0	4	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
SB-804	BPLM-ISS	0	4	0
SB-805	BPLM-ISS	0	4	0
SB-806	BPLM-ISS	0	4	0
SB-807	BPLM-ISS	0	4	0
SB-808	BPLM-ISS	0	4	0
SB-814	BPLM-ISS	0	4	0
SB-824	BPLM-ISS	3	4	1000
SB-911	BPLM-ISS	27.8	30	0
SB-912	BPLM-ISS	22.5	23	0
SB-913	BPLM-ISS	0	27	0
SB-913	BPLM-ISS	27	30	0
SB-914	BPLM-ISS	29	30	0
SB-915	BPLM-ISS	28	28.5	0
SB-915	BPLM-ISS	28.5	30	0
SB-916	BPLM-ISS	24	28	0
SB-917	BPLM-ISS	26.5	28	0
SB-918	BPLM-ISS	25.8	28	0
SB-919	BPLM-ISS	0	25.7	0
SB-919	BPLM-ISS	25.7	28	0
SB-920	BPLM-ISS	32	33.92	1000
SB-921	BPLM-ISS	28.5	30	0
SB-922	BPLM-ISS	0	25	0
SB-922	BPLM-ISS	25	28	0
SB-924	BPLM-ISS	30	32	10000
SI-01	BPLM-ISS	25.5	28	0
SI-01	BPLM-ISS	25.5	25.5	100000
SI-02	BPLM-ISS	25	28	0
SI-03	BPLM-ISS	26.3	28	0
SI-04	BPLM-ISS	27.2	28	0
SI-05	BPLM-ISS	27.2	28	0
SI-06	BPLM-ISS	27	28	0
SI-07	BPLM-ISS	26	28	0
SI-08	BPLM-ISS	26	28	0
SI-09	BPLM-ISS	27.5	28	0
SI-10	BPLM-ISS	27.3	28	0
SI-11	BPLM-ISS	26.8	28	0
SI-12	BPLM-ISS	20.5	25	0
SI-13	BPLM-ISS	24	28	0
SI-14	BPLM-ISS	22.8	28	0
SI-15	BPLM-ISS	24.5	25	0
SI-16	BPLM-ISS	26.5	27	0
SI-17	BPLM-ISS	27	28	0
SI-18	BPLM-ISS	26.75	30	0
SI-19	BPLM-ISS	25.3	28	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
SI-20	BPLM-ISS	25	30	0
SI-21	BPLM-ISS	23	25	0
SI-22	BPLM-ISS	25	30	0
SI-23	BPLM-ISS	24	25	0
SI-24	BPLM-ISS	26.5	30	0
SI-25	BPLM-ISS	25.8	30	0
SI-26	BPLM-ISS	25.5	28	0
SI-27	BPLM-ISS	26.8	30	0
SI-28	BPLM-ISS	27.5	30	0
SI-29	BPLM-ISS	25	30	0
TLC-01D	BPLM-ISS	20.5	22	1000
TLC-02D	BPLM-ISS	14	18	0
TLC-03D	BPLM-ISS	15	19	0
TLC-04D	BPLM-ISS	0	3	0
TLC-04D	BPLM-ISS	3	7	0
TLC-04D	BPLM-ISS	7	12.5	0
TLC-04D	BPLM-ISS	12.5	13.7	0
TLC-04D	BPLM-ISS	13.7	15	0
TLC-04D	BPLM-ISS	15	19	0
TLC-04D	BPLM-ISS	19	21	0
TLC-04D	BPLM-ISS	21	22	0
TLC-04D	BPLM-ISS	22	22.5	0
TLC-04D	BPLM-ISS	22.5	23.7	0
TLC-04D	BPLM-ISS	23.7	24.1	0
TLC-04D	BPLM-ISS	24.1	27.5	0
TLC-04D	BPLM-ISS	27.5	28.7	0
TLC-04D	BPLM-ISS	28.7	30	0
TLC-05D	BPLM-ISS	12.4	13.1	0
TLC-05D	BPLM-ISS	13.1	15	0
TLC-05D	BPLM-ISS	15	19	0
TLC-05D	BPLM-ISS	19	22.3	0
TLC-05D	BPLM-ISS	22.3	24	0
TLC-05D	BPLM-ISS	24	26	0
TLC-06D	BPLM-ISS	0	3	0
TLC-06D	BPLM-ISS	3	8.4	0
TLC-06D	BPLM-ISS	8.4	10.6	0
TLC-06D	BPLM-ISS	10.6	10.8	0
TLC-06D	BPLM-ISS	10.8	12	0
TLC-06D	BPLM-ISS	12	13.2	0
TLC-06D	BPLM-ISS	13.2	14.5	0
TLC-06D	BPLM-ISS	14.5	16	0
TLC-06D	BPLM-ISS	16	19.2	0
TLC-06D	BPLM-ISS	19.2	20.25	0
TLC-06D	BPLM-ISS	20.25	22.4	0

Appendix C-2:
Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
TLC-06D	BPLM-ISS	22.4	23	0
TLC-06D	BPLM-ISS	23	27	0
TLC-06D	BPLM-ISS	27	30	0
TLC-07D	BPLM-ISS	24.5	26	0
TLC-07D	BPLM-ISS	26	27	0
TLC-08D	BPLM-ISS	0	12	0
TLC-08D	BPLM-ISS	12	16	1000
TLC-08D	BPLM-ISS	16	28	0
TLC-09D	BPLM-ISS	0	13.6	0
TLC-09D	BPLM-ISS	13.6	14.3	0
TLC-09D	BPLM-ISS	14.3	28	0
TLC-10D	BPLM-ISS	24	28	1000
TLC-11D	BPLM-ISS	0	4	0
TLC-11D	BPLM-ISS	4	8	0
TLC-11D	BPLM-ISS	8	12.2	0
TLC-11D	BPLM-ISS	12.2	14.5	0
TLC-11D	BPLM-ISS	14.5	16	0
TLC-11D	BPLM-ISS	16	18	0
TLC-11D	BPLM-ISS	18	23	0
TLC-11D	BPLM-ISS	23	23	0
TLC-12D	BPLM-ISS	30	32	1000
TW-01	BPLM-ISS	0	24	0
TW-01	BPLM-ISS	24	30	10000000
TW-02	BPLM-ISS	0	29	0
TW-03	BPLM-ISS	0	12	0
TW-03	BPLM-ISS	12	13	1000000
TW-03	BPLM-ISS	13	27	0
TW-03	BPLM-ISS	27	29	10000
TW-04	BPLM-ISS	0	27	0
TW-04	BPLM-ISS	27	29	1000
TW-04	BPLM-ISS	29	31	10000
TW-04	BPLM-ISS	31	32	100000
TW-04	BPLM-ISS	32	34	1000
TW-05	BPLM-ISS	0	24	0
TW-06	BPLM-ISS	0	29	0
TW-07	BPLM-ISS	0	24	0
TW-08	BPLM-ISS	0	25	0
WW-0+30-C1	BPLM-ISS	0	8	0
WW-0+30-C1	BPLM-ISS	4.6	4.7	0
WW-0+30-L1	BPLM-ISS	0	26	0
WW-0+30-L1	BPLM-ISS	12	14	0
WW-2+70-C1	BPLM-ISS	1	3	0
WW-2+70-R1	BPLM-ISS	0	4	0
WW-2+70-R1	BPLM-ISS	0	25.5	0

Appendix C-2:

Data Used for the Site 3D Impacts and BPLM Observation Source Model, Post Remediation

Bore	Type	Depth1	Depth2	Value
WW-2+70-R1	BPLM-ISS	4	6	0
WW-2+70-R1	BPLM-ISS	6	8	0
WW-2+70-R1	BPLM-ISS	8	9.5	0
WW-2+70-R1	BPLM-ISS	9.5	14	0
WW-2+70-R1	BPLM-ISS	14	15.5	0
WW-2+70-R1	BPLM-ISS	15.5	16.5	0
WW-2+70-R1	BPLM-ISS	16.5	20	0
WW-2+70-R1	BPLM-ISS	20	23.8	0
WW-2+70-R1	BPLM-ISS	23.8	25.5	0
WW-2+70-R1	BPLM-ISS	25.5	25.5	0
WW-3+70-C1	BPLM-ISS	5.8	10	0
WW-4+20-C1	BPLM-ISS	1	7	0

APPENDIX H

Boring Logs – Additional Borings Since December 2009 SCM

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475
Boring ID: TW-1
Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/12/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 30 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	**SW**	1.4	6	Brown/orange SAND, well graded, moist at 7 feet BGS, medium to coarse grained, no odors
7-24	**CL**	1.2 2.8 6.3 8.1	9 14 15 19	Light brown/gray CLAY with silt and fine to medium grained sand sand, slightly moist becoming moist at 19 feet BGS, becoming firmer with depth and tight at 23 feet BGS, no odors
24-30	**SP**	1.2 79.5 3700	24 25 30	Gray SAND, Saturated (2" lense at 30 feet BGS) of BPLM, medium grained, compacted, moist to wet, strong odor
				End Of Hole at 30 feet BGS. Approximately 14 inches of free product sitting in well. Well not sampled. See well construction diagram for well construction details.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475

Boring ID: TW-2

Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/13/2010

Remarks:
1. BGS = Below Ground Surface
2. Boring was terminated at 29 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-6	SP			Orange/brown SAND, fine ~~medium~~ grained, slightly moist, no odors.
6-10	SM			Gray/brown SILTY SAND slightly moist, becoming firm with depth, no odors.
10-22	CL			Gray/brown CLAY, stiff, no odors, no staining.
22-28	SP			Light brown SAND, medium grained, moist becoming wet at 25 feet BGS, no odors
28-29				Blue/green SAPROLITE, slightly moist, no odors
				End Of Hole at 29 feet BGS. Standing water level on 10/13/10 approximately11.5 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475

Boring ID: TW-3

Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/14/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 29 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-14	SM	0 0	9 13	Gray/brown SILTY SAND, fine to medium grained, slightly moist, trace TLM globules at 13 feet BGS, no odors
14-17	CL	0	16	Brown/Gray SILTY CLAY, firm, slightly moist, no odors
17-18	SM	0	18	Light brown SILTY SAND, medium grained, slightly moist, no odors
18-27	CL	0 0	19 24	Light brown/gray SILTY CLAY, moist becoming wet at 27 feet BGS, soft becoming firm with depth, no odors
27-29	SP	23.2	29	Gray SAND, medium grained, moist, strong odor
				Refusal at 29 feet BGS. End Of Hole at 29 feet BGS, no saprolite encountered. No saprolite encountered. See well construction diagram for well construction details.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475
Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/13/2010

Boring ID: **TW-4**

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 34 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-6	SW	0.7	6	Light brown SAND, well graded, dry, no odors, no staining
6-10	SM			Brown, SILTY SAND w/ trace clay, soft, moist.
10-19	CL	0.1 0 0	9 14 19	Brown/Gray CLAY, with interbedded SILTY SAND slightly moist, becoming firm with depth, no odors, no staining
19-22	SM		0	Brown, SILTY SAND w/ trace clay, soft, moist.
22-23	SP	0	23	Light brown SAND, medium grained, slightly moist, no odors, no staining
23-25	CL	0	26	Brown/Gray SILTY CLAY, slightly moist, firm, no odors, no staining
25-29	SP			Light brown/orange SAND, medium to coarse grained, wet, Napthalene odor at 27' ~~no odors~~, no staining
29-32	SW	10.1	29	Gray SAND, wet, strong odor, some staining at 31 feet BGS
32-34		178.1	33	Blue/green SAPROLITE, firm, moderate odor, no staining
				End Of Hole at 34 feet BGS. Stand water level on 10/14/10 approximately 10.4 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475
Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/13/2010

Boring ID: TW-5

Remarks:
1. BGS = Below Ground Surface
2. Boring was terminated at 24 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-8	SM			Brown/ orange SILTY SAND, medium stiff, dry, no odor.
8-13	CL	0.4	10	Gray/brown SILTY CLAY, firm, dry, no odors
13-15	SP	0	13	Light yellow/gray SAND, slightly moist, fine grained, no odors
15-24	SW	0 0.5	19 24	Brown/gray SAND, well graded, medium grained becoming coarse with depth, wet, no odors
				Refusal at 24 feet BGS. End Of Hole at 24 feet BGS. Standing water level on 10/14/10 approximately 17.3 feet BGS. See well construction diagram for well construction details. No saprolite encountered.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475

Boring ID: TW-6

Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/13/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 29 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-12	SM	0	9	Gray/brown SILTY SAND, some clay, fine grained, firm, no odors
12-29	SW	0 0.9 0 0.2	13 19 24 29	Yellow/light brown SAND, fine grained becoming coarser with depth, moist to wet at 14 feet BGS, some pea gravel at 29 feet BGS
				Refusal at 29 feet BGS. End Of Hole at 29 feet BGS. Standing water level on 10/14/10 approximately 12.75 feet BGS. See well construction diagram for well construction details. No saprolite encountered.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475
Boring ID: TW-7
Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/12/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 24 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-12	CL	3.6 6.4	9 10	Gray/brown SILTY CLAY, dry, no odors
12-19	SP	2.8 5.2	14 18	Yellow/gray SAND, coarse, moist becoming wet at 15 feet BGS, no odors
19-24	SP	10.2	23	Light yellow SAND, wet, coarse grained, no odors
				End Of Hole at 24 feet BGS. Standing water level on 10/14/10 approximately 14.81 feet BGS. See well construction diagram for well construction details. No saprolite encountered.

Environmental Resources Management **Geoprobe® Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475

Boring ID: TW-8

Equipment: Geoprobe
Installation Method: Push Tube
Operator / Company: Aaron/ Betts Drilling
Field Geologist: Simon Matthews
Date of Installation: 10/14/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 24 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	SP	0	7	Light brown/orange SAND, medium grained, moist, no odors
7-15	CL	0	13	Light brown/gray SILTY CLAY, some fine sand, slightly moist, firm becoming soft with depth, no odors, organic matter (root) at 13 feet BGS
15-16	SW	0	16	Light brown SAND, fine to medium grained, slightly moist, no odors
16-24	CL	0	22	Light brown/gray SILTY CLAY, some fine sand, slightly moist, firm, no odors
24-25		0	24	Blue/green/gray SAPROLITE, firm, moist, no odors
				End Of Hole at 24 feet BGS. Standing water level on 10/15/10 approximately 9.5 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management

Sonic Drilling Boring Log

Project: AGL Augusta GA
ERM Project No.: 118475

Boring ID: MW-600

Equipment: Sonic Rig
Installation Method: Sonic Drilling
Operator / Company: David Wilcox - Boart Longyear
Field Geologist: Simon Matthews
Date of Installation: 10/19/2010

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 32 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	SM	279	6	Light brown,gray SILTY SAND, slight odor, slightly moist, fine grained, no staining
7-17	SC	35 87	10 16	Light brown,gray CLAYEY SAND, slight odor, slightly moist, fine grained, no staining
17-25	CL	110	22	Gray CLAY, moist, firm, no odors, no staining
25-26	SW	26	>15,000	SAND lense medium to coarse grained, saturated with BPLM, moist strong odors
26-32		31	34	Gray/light brown SAPROLITE, firm, slight odor, no staining, moist (water introduced by drillers)
				End Of Hole at 32 feet BGS. Standing water level on 10/20/10 approximately 11 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management

Sonic Drilling Boring Log

Project:	AGL Augusta GA
ERM Project No.:	118475
Equipment:	Sonic Rig
Installation Method:	Sonic Drilling
Operator / Company:	David Wilcox - Boart Longyear
Field Geologist:	Simon Matthews
Date of Installation:	10/20/2010

Boring ID: **MW-601**

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 27 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	SM	0 0	5 7	Light brown SILTY SAND, fine grained, slightly moist, no odors, no staining, fine grained sand lense at 5 feet BGS
7-19	CL	67 51	12 16	Brown/gray SILTY CLAY, slightly firm becoming stiff at 15 feet BGS, slightly moist, slight odor, no staining
19-26	SW	79.1 >15000	20 26	Gray SAND, medium grained (increasing coarseness with depth), wet, strong odor, sheen at 19.5 feet BGS, saturated BPLM at 25-26 feet BGS
26-27		181	27	Gray/blue/green SAPROLITE, strong odor, no staining
				End Of Hole at 27 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management **Sonic Drilling Boring Log**

Project:	AGL Augusta GA
ERM Project No.:	118475
Equipment:	Sonic Rig
Installation Method:	Sonic Drilling
Operator / Company:	David Wilcox - Boart Longyear
Field Geologist:	Simon Matthews
Date of Installation:	10/19/2010

Boring ID: **MW-602**

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 32 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	SM	0	6	Light brown SILTY SAND, slightly moist, no odors, no staining
7-16	CL	0	12	Light brown/gray SILTY CLAY, slightly moist, firm, no odors, no staining
16-17	SP	0	16	Light brown/gray SAND lense, medium grained, slightly moist, no odors, no staining
17-21	SM	0	20	Light brown/gray SILTY SAND W/ CLAY, slightly moist, firm, no odors, no staining
21-29	SW	35.2 0	22 28	Gray SAND, medium grained (increasing coarseness with depth), moist becoming wet at 27 feet BGS, slight odor, no staining
29-32		0	31	Light gray/brown SAPROLITE, slightly moist but firm, no odors, no staining
				End Of Hole at 32 feet BGS. Standing water level on 10/20/10 approximately 10 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management **Sonic Drilling Boring Log**

Project:	AGL Augusta GA
ERM Project No.:	118475
Equipment:	Sonic Rig
Installation Method:	Sonic Drilling
Operator / Company:	David Wilcox - Boart Longyear
Field Geologist:	Simon Matthews
Date of Installation:	10/19/2010

Boring ID: **MW-603**

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 27 ft. BGS.
3. BPLM = By Product Like Material
4. PID = Photoionization Detector
5. N/A=Not Applicable

Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-7	SM	0	6	Black/brown SILTY SAND W/GRAVEL, slightly moist, loose, no odors, organic matter at 7 feet BGS, black crystalline inclusions at 6 feet BGS.
7-14	SM	0	12	Gray/black SILTY SAND W/CLAY, black organic matter at 7-9 feet BGS, wet, no odors, no staining.
14-15	SW	0	14	Gray SAND, wet, fine to coarse grained, no odors, no staining
15-19	CL	0	16	Gray CLAY, moist/wet, soft, no odors, no staining
19-23	PT	261	23	Brown/black organic material, residual BPLM, moist, strong odor
23-27		0	25	Light gray SAPROLITE, dry, no odors, no staining
				End Of Hole at 27 feet BGS. Standing water level on 10/20/10 approximately 6 feet BGS. See well construction diagram for well construction details.

Environmental Resources Management **Sonic Drilling Boring Log**

Project: AGL Augusta GA
ERM Project No.: 118475
Equipment: Sonic Rig
Installation Method: Sonic Drilling
Operator / Company: David Wilcox - Boart Longyear
Field Geologist: Simon Matthews
Date of Installation: 10/20/2010

Boring ID: **MW-513BR**

Remarks:

1. BGS = Below Ground Surface
2. Boring was terminated at 82 ft. BGS.
3. PID = Photoionization Detector
4. N/A=Not Applicable

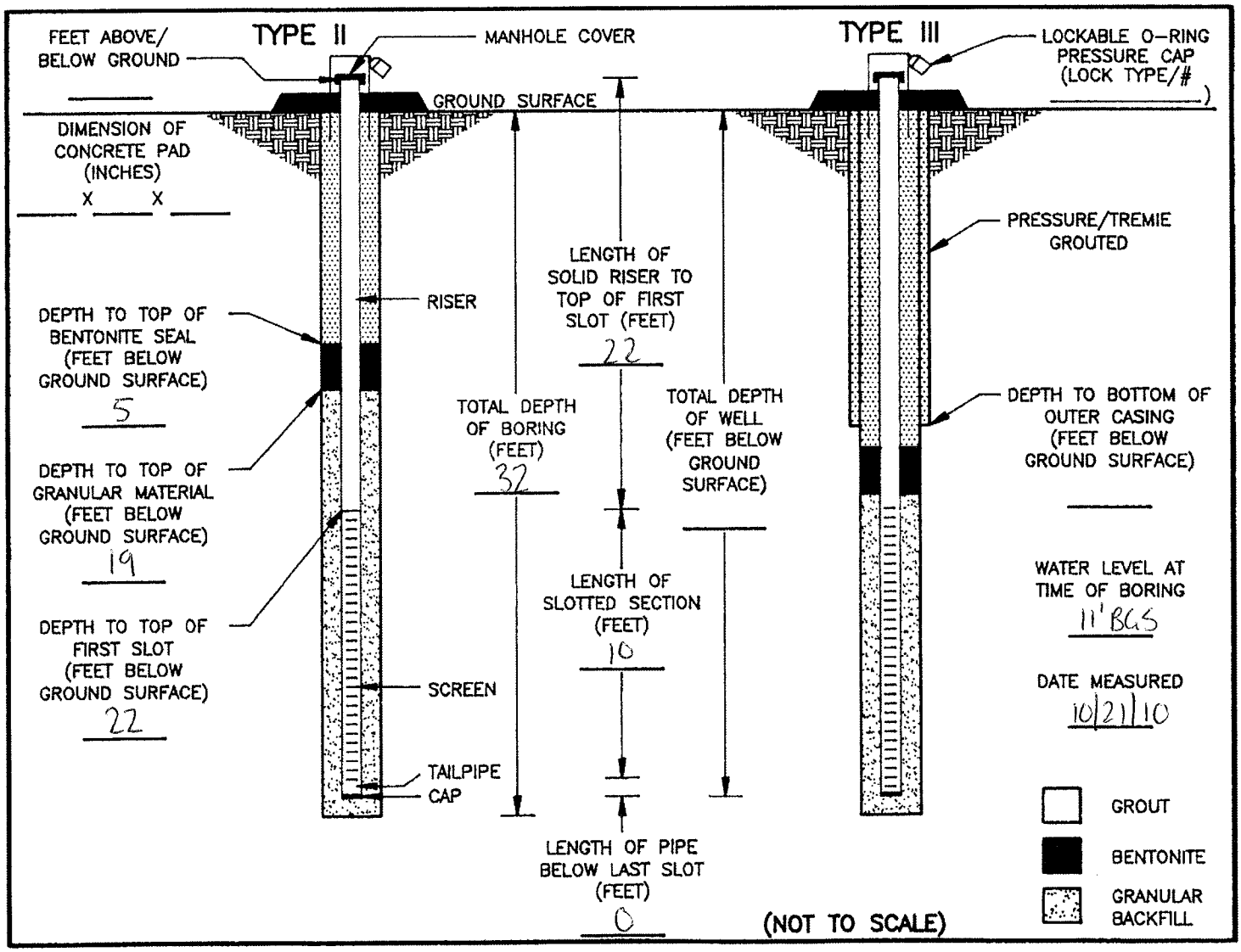
Depth (feet BGS)	Group Symbol	PID Reading	Depth (ft BGS)	Lithological Description
0-4				Hand Auger
4-16	SM	0	6	Light brown/gray SILTY SAND, slightly moist, fine grained, no odors, no staining
16-17.5	SP	0	16	Gray/brown SAND, medium grained, moist, no odors, no staining
17.5-25	CL	0	24	Gray CLAY, wet, soft, no odors, no staining
25-26	SW	0	26	Gray SAND, medium to coarse grained, some gravel, wet, no odors, no staining
26-47.5		16 0 0	29 33 40	Blue/green SAPROLITE, no odors, no staining, dry and becoming firm and tending Gray with depth
47.5-82		0 0 0 0	51 65 75 82	BEDROCK, gray/black amphibolite, dense, unable to break with hand, no odors, no staining.
				End of Hole at 82 feet BGS.
				Well advanced to 51.5 feet BGS on 10/18/10. Casing set at 51.5 feet BGS. Well advanced through casing to 82 feet BGS and well constructed on 10/20/10. Standing water Level on 10/20/10 approximately 14 feet BGS. See well construction diagram for well construction details.

MONITORING WELL INSTALLATION DIAGRAM – MANHOLE/STICK-UP TYPE

ERM®

Well Number:	MW-600
Project Number:	0118475
Date Installed:	10/19/10
City, State:	Augusta, GA

Location of Well (on-site description):	Well Materials (size or amount, type manufacturer):
See site figure	Riser(s): 0-22 Dia. 1 In.
	Screen: 22-32 Dia. 1 In.
Drilling Contractor: David Wilcox – Boart Longyear	Cement: Grout
Drilling Methods (Size and Type)	Sand: Industrial Quartz – Filter Sand
0 to 4 Ft. HA Dia. 4 In.	
4 to 32 Ft. Sonic Dia. 6.25 In.	
to Ft. Dia. In.	Bentonite: Yes
Driller's Name: David Wilcox	Screen Slot Size (In.) 0.010
Remarks:	Cover Flush mount
Logged By: SJM	Checked By:



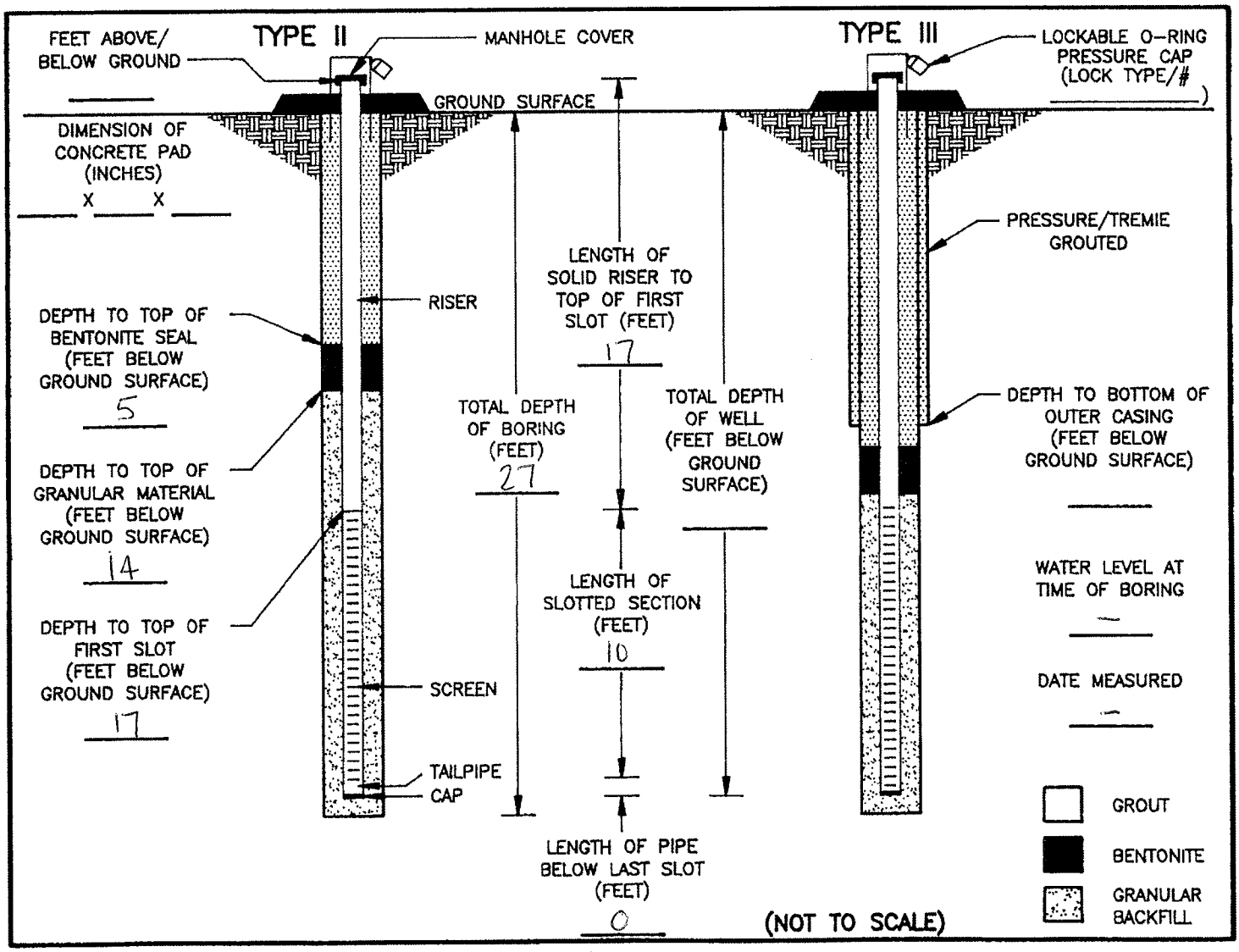
NOTE: See back page for additional information and conversion units.

MONITORING WELL INSTALLATION DIAGRAM – MANHOLE/STICK-UP TYPE

ERM®

Well Number:	MW-601
Project Number:	0118475
Date Installed:	10/20/10
City, State:	Augusta, GA

Location of Well (on-site description):	Well Materials (size or amount, type manufacturer):
See site figure	Riser(s): 0-17 Dia. 1 In.
	Screen: 17-27 Dia. 1 In.
Drilling Contractor: David Wilcox – Boart Longyear	Cement: Grout
Drilling Methods (Size and Type)	Sand: Industrial Quartz – Filter Sand
0 to 4 Ft. HA Dia. 4 In.	
4 to 27 Ft. Sonic Dia. 6.25 In.	
to Ft. Dia. In.	Bentonite: Yes
Driller's Name: David Wilcox	Screen Slot Size (In.) 0.010
Remarks:	Cover Flush mount
Logged By: SJM	Checked By:



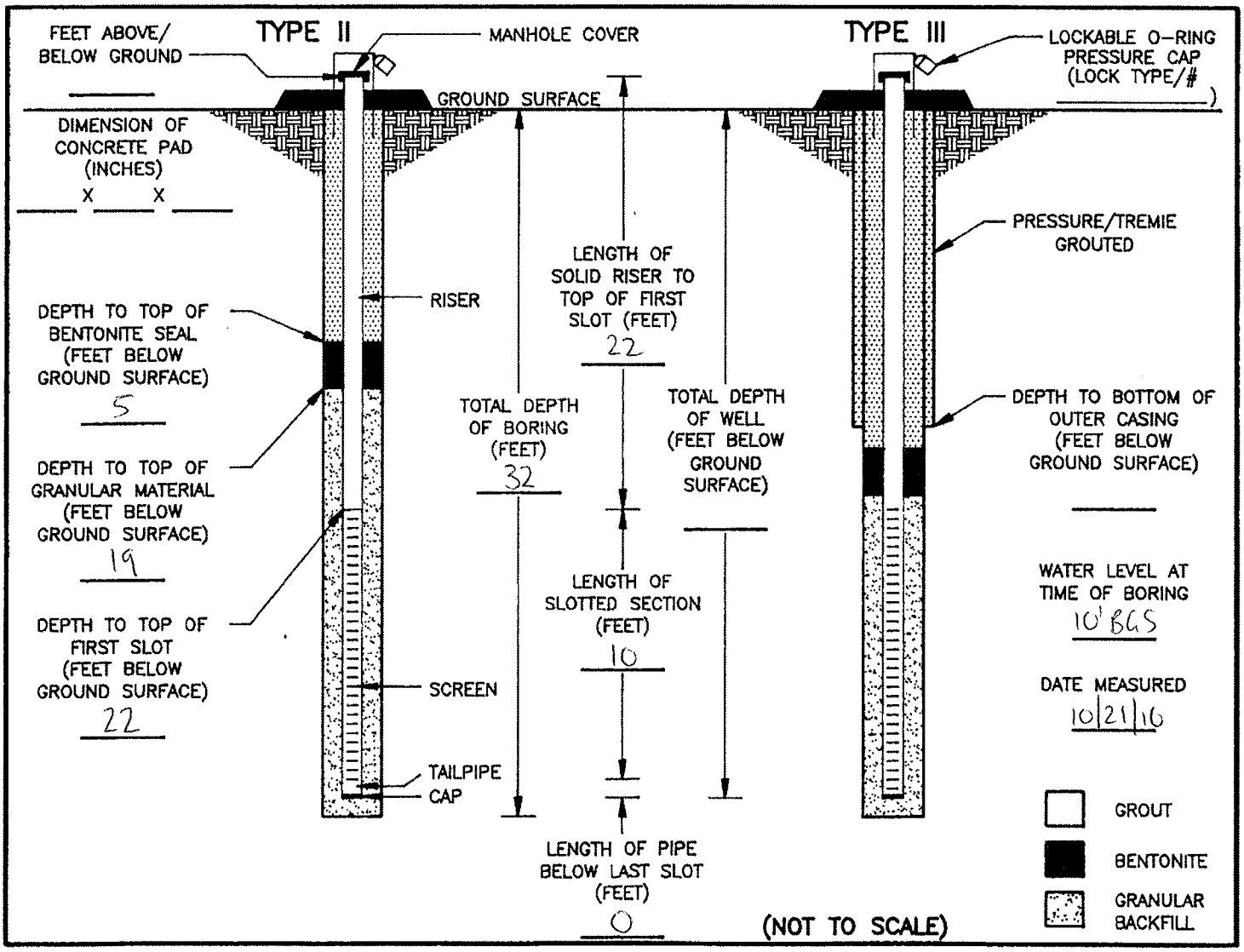
NOTE: See back page for additional information and conversion units.

MONITORING WELL INSTALLATION DIAGRAM – MANHOLE/STICK-UP TYPE

ERM®

Well Number:	MW-602
Project Number:	0118475
Date Installed:	10/19/10
City, State:	Augusta, GA

Location of Well (on-site description):	Well Materials (size or amount, type manufacturer):
See site figure	Riser(s): 0-22 Dia. 1 In.
	Screen: 22-32 Dia. 1 In.
Drilling Contractor: David Wilcox – Boart Longyear	Cement: Grout
Drilling Methods (Size and Type)	Sand: Industrial Quartz – Filter Sand
0 to 4 Ft. HA Dia. 4 In.	
4 to 32 Ft. Sonic Dia. 6.25 In.	
to Ft. Dia. In.	Bentonite: Yes
Driller's Name: David Wilcox	Screen Slot Size (In.) 0.010
Remarks:	Cover Flush mount
Logged By: SJM	Checked By:



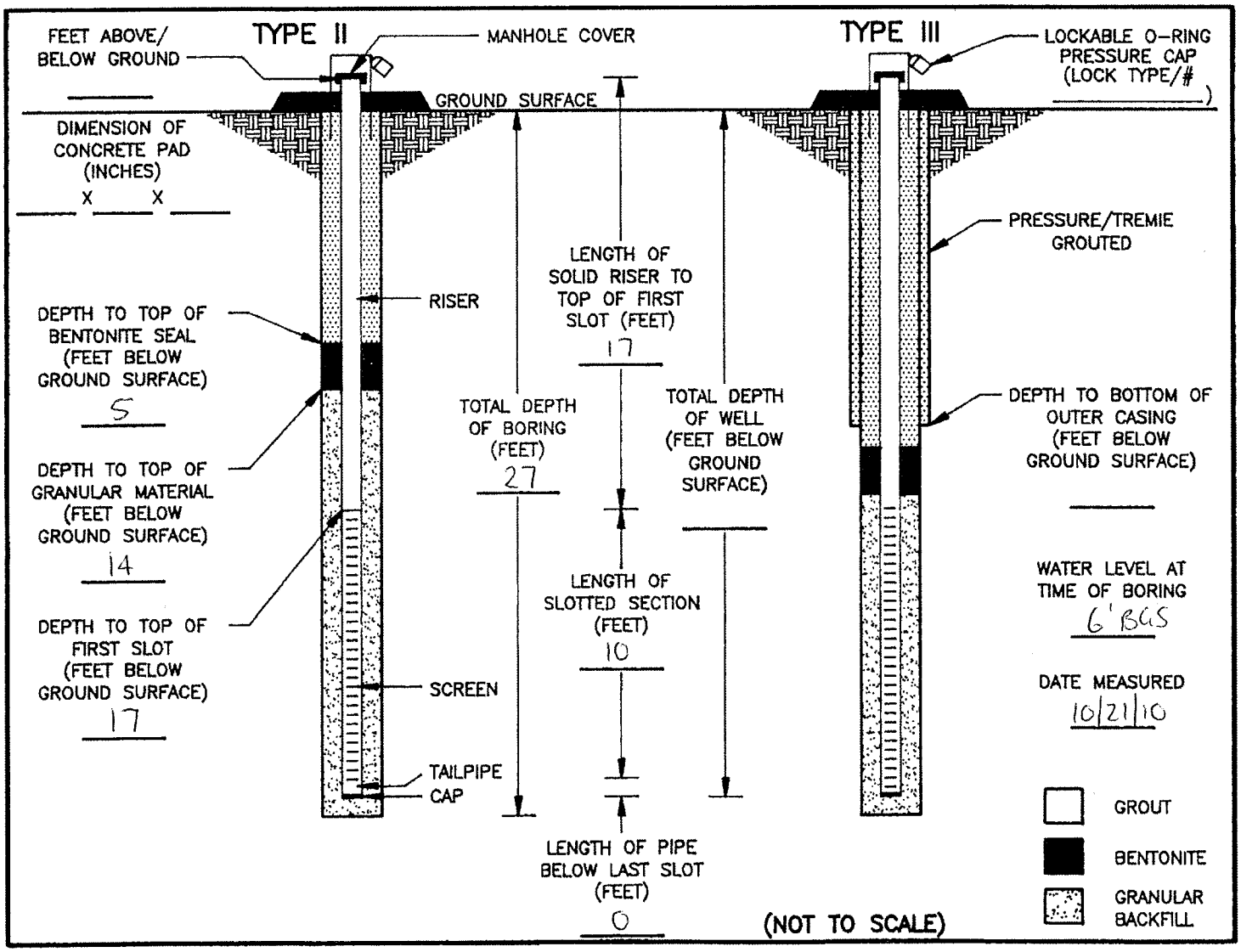
NOTE: See back page for additional information and conversion units.

MONITORING WELL INSTALLATION DIAGRAM – MANHOLE/STICK-UP TYPE

ERM®

Well Number:	MW-603
Project Number:	0118475
Date Installed:	10/19/10
City, State:	Augusta, GA

Location of Well (on-site description):	Well Materials (size or amount, type manufacturer):
See site figure	Riser(s): 0-17 Dia. 1 In.
	Screen: 17-27 Dia. 1 In.
Drilling Contractor: David Wilcox – Boart Longyear	Cement: Grout
Drilling Methods (Size and Type)	Sand: Industrial Quartz – Filter Sand
0 to 4 Ft. HA Dia. 4 In.	
4 to 27 Ft. Sonic Dia. 6.25 In.	
to Ft. Dia. In.	Bentonite: Yes
Driller's Name: David Wilcox	Screen Slot Size (In.) 0.010
Remarks:	Cover Flush mount
Logged By: SJM	Checked By:



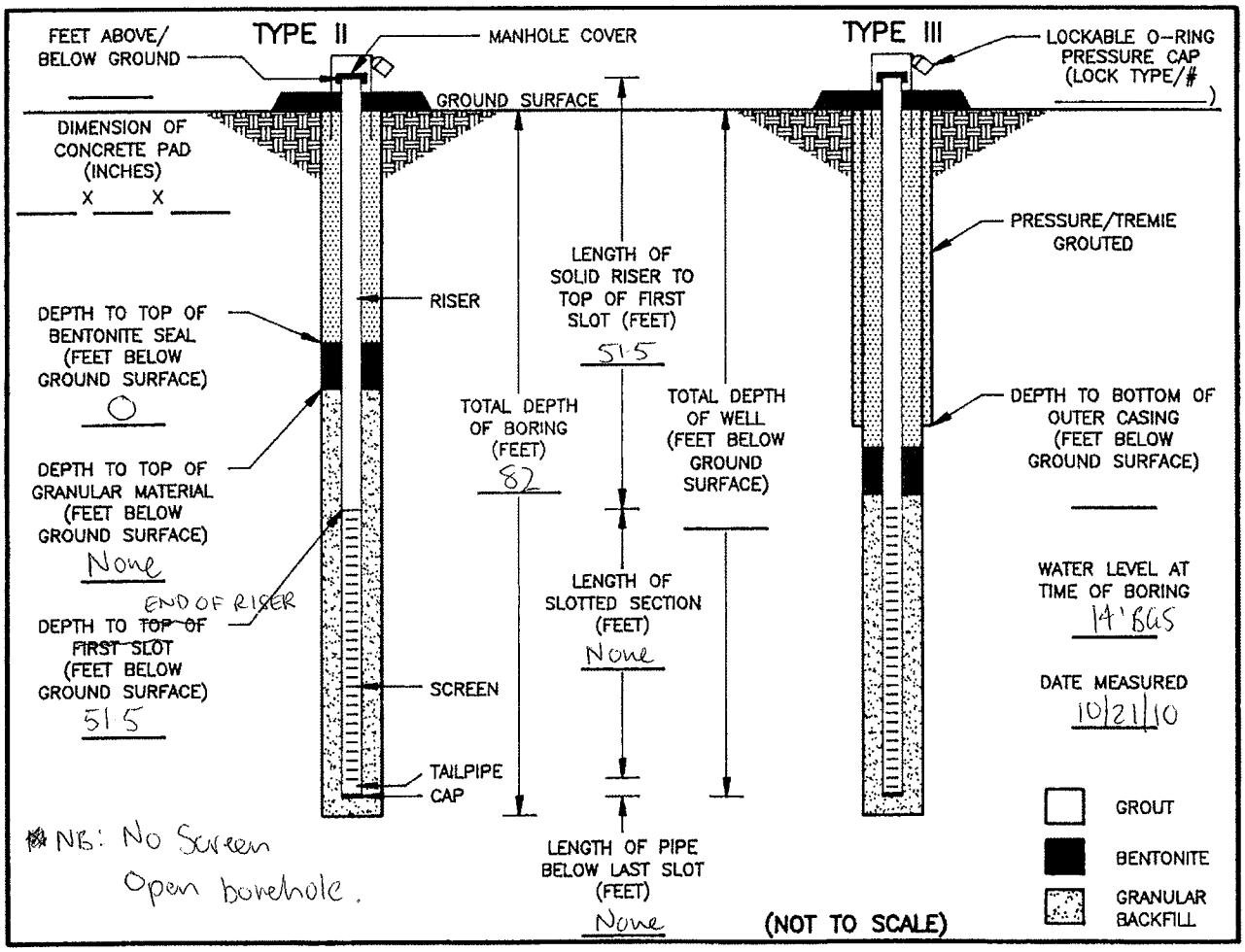
NOTE: See back page for additional information and conversion units.

MONITORING WELL INSTALLATION DIAGRAM – MANHOLE/STICK-UP TYPE

ERM®

Well Number:	MW-513BR
Project Number:	0118475
Date Installed:	10/20/10
City, State:	Augusta, GA

Location of Well (on-site description):	Well Materials (size or amount, type manufacturer):
See site figure	Riser(s): 0-51.5 Dia. 6" to BR, grouted In.
	Screen: None Dia. In.
Drilling Contractor: David Wilcox – Boart Longyear	Cement: Grout
Drilling Methods (Size and Type)	Sand: Industrial Quartz – Filter Sand
0 to 4 Ft. HA Dia. 4 In.	
4 to 51.5 Ft. Sonic Dia. 9.25 In.	
51.5 to 82 Ft. Sonic Dia. 3 In.	Bentonite: Yes
Driller's Name: David Wilcox	Screen Slot Size (In.) No Screen Open Borehole
Remarks: Open borehole in bedrock. Advanced 4 feet into bedrock (51.5 ft BGS) on 10/18/10 and cased. Advanced through casing to 82 feet BGS on 10/20/10.	Cover Flush mount
Logged By: SJM	Checked By:



NOTE: See back page for additional information and conversion units.

APPENDIX I

Sanborn Maps

AGLC-Augusta
807 8th Street
Augusta, GA 30901

Inquiry Number: 2478978.1
April 27, 2009

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

4/27/09

Site Name:
AGLC-Augusta
807 8th Street
Augusta, GA 30901

Client Name:
Environmental Cost
660 Baker Street
Costa Mesa, CA 92626

EDR Inquiry # 2478978.1

Contact: Andrew Campbell

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Environmental Cost Management, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: AGLC-Augusta
Address: 807 8th Street
City, State, Zip: Augusta, GA 30901
Cross Street:
P.O. # NA
Project: AGLC-Augusta SC
Certification # EA17-4D63-8886

Sanborn® Library search results
Certification # EA17-4D63-8886

Maps Provided:

1884	1954
1890	1960
1904	1970
1923	
1950	
1953	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Certified Sanborn® Map Report Enhancements for 2009

The accompanying Certified Sanborn Map Report reflects a number of enhancements that make it easier for you to review these historical maps. EDR has digitally joined together the more than one million fire insurance maps from the Sanborn Library collection so that your target property is centered, making it easier for you to review adjoining properties. Here is a list of the new features:

· Your target property is centered on each map. You can quickly locate your target property and view adjoining properties. Plus, adjoining properties are included more often, reducing your need to refer to additional maps.

· All maps are now displayed at a uniform scale. This makes it easier for you to view changes to the property over time.

· We've increased coverage by adding thousands of new maps from 40 cities for years 1994-2007.

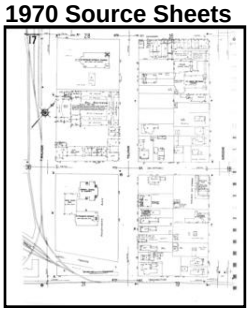
· A new Map Key and Sheet Thumbnails let you reference sheet numbers, year and volume of original Sanborn Map panels used for this report.

For more information about the new enhancements to the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

Sanborn Sheet Thumbnails

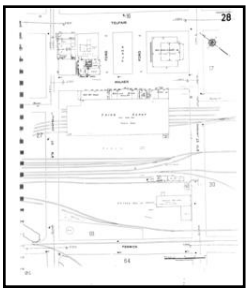
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets



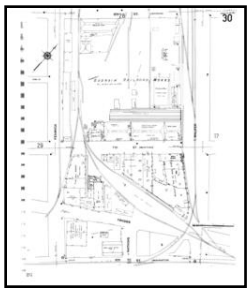
Volume 1, Sheet 17

Volume 1, Sheet 27



Volume 1, Sheet 28

Volume 1, Sheet 29

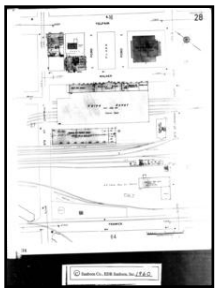


Volume 1, Sheet 30

Volume 1, Sheet 64

1960 Source Sheets

Volume 1, Sheet 27



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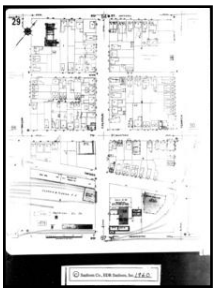


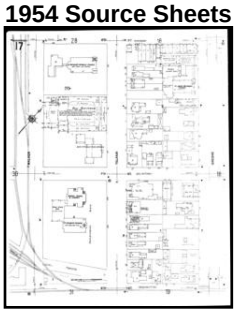
Volume 1, Sheet 29

Volume 1, Sheet 30

Volume 1, Sheet 17

Volume 1, Sheet 64

1954 Source Sheets



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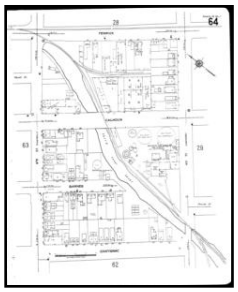

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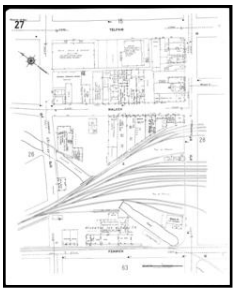

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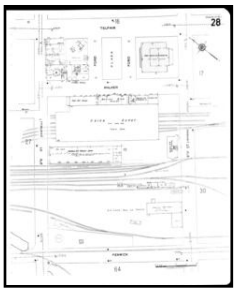

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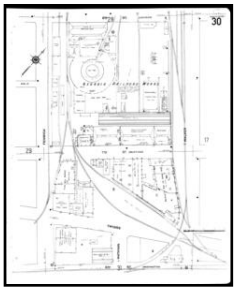


Volume 1, Sheet 30

1953 Source Sheets

Volume 1, Sheet 17

Volume 1, Sheet 27

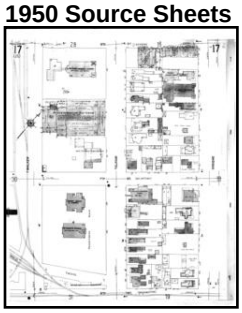
Volume 1, Sheet 28

Volume 1, Sheet 29

Volume 1, Sheet 30

Volume 1, Sheet 64

1950 Source Sheets



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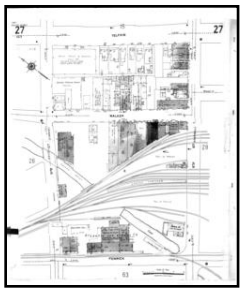

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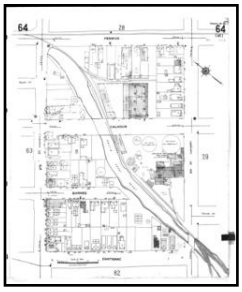
Volume 1, Sheet 29

Volume 1, Sheet 30



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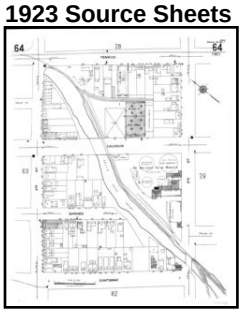

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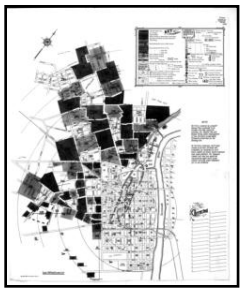

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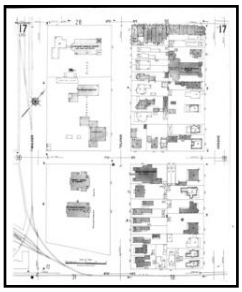
Volume 2, Sheet R



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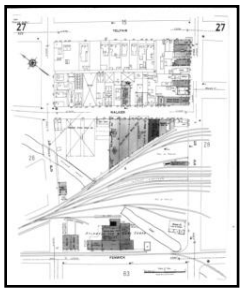

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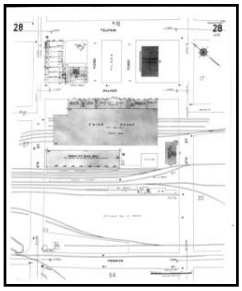

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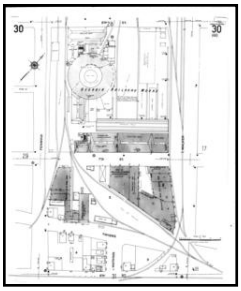

Volume 1, Sheet 30

1904 Source Sheets

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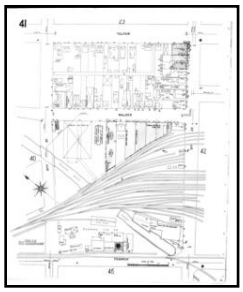

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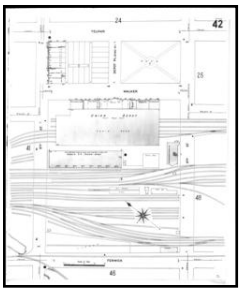

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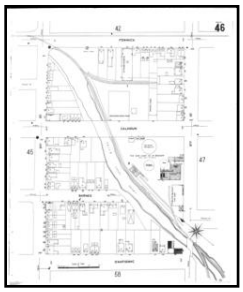

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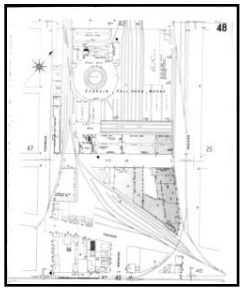
Volume 1, Sheet 47



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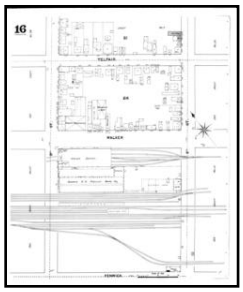
1890 Source Sheets

Volume 1, Sheet 15



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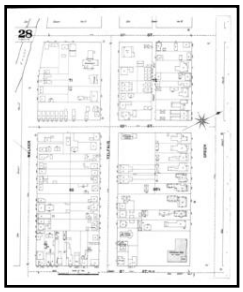

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1884 Source Sheets

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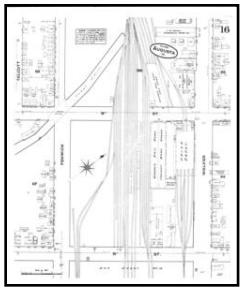

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Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
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Certification #	EA17-4D63-8886

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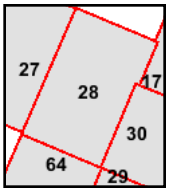

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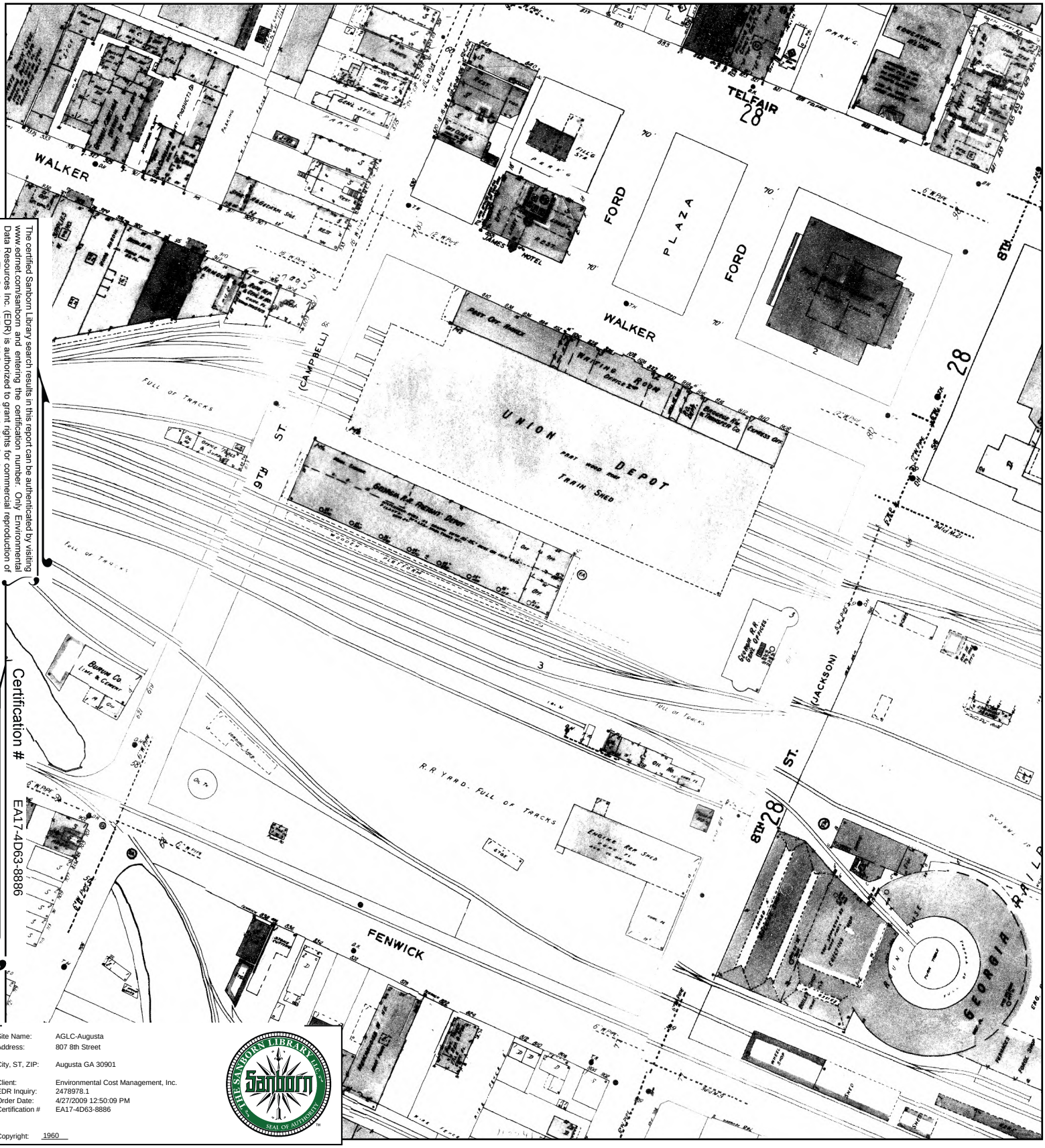
N

1960 Certified Sanborn Map



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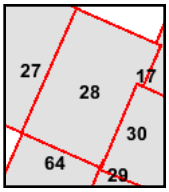

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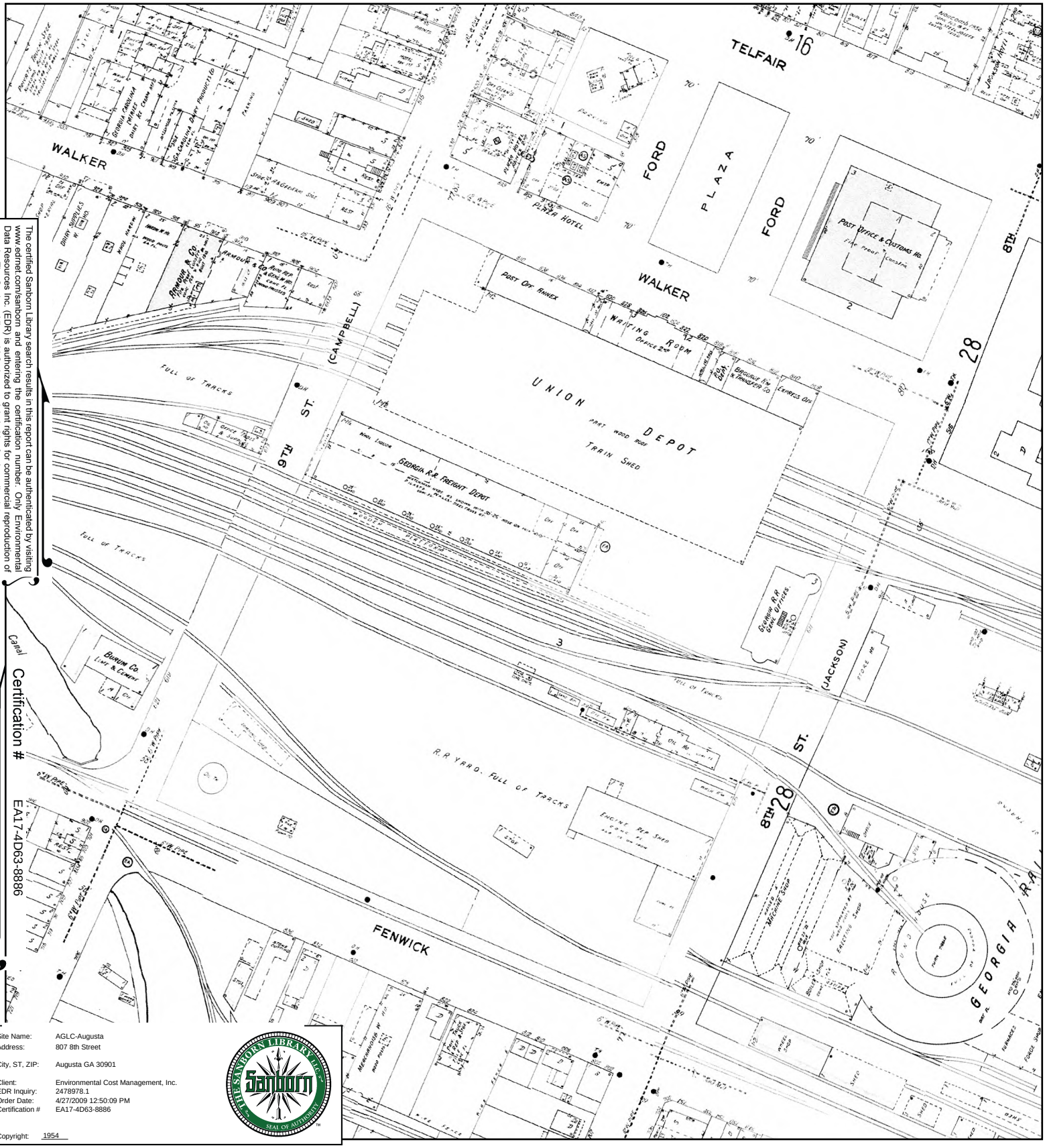
N

1954 Certified Sanborn Map



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Certification #	EA17-4D63-8886

Copyright: 1954

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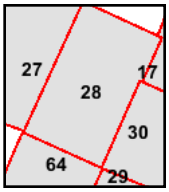

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Volume 1, Sheet 29
Volume 1, Sheet 30

N

1953 Certified Sanborn Map

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Certification #	EA17-4D63-8886

Copyright: 1953

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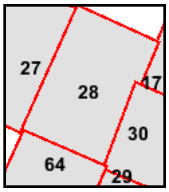

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Volume 1, Sheet 64

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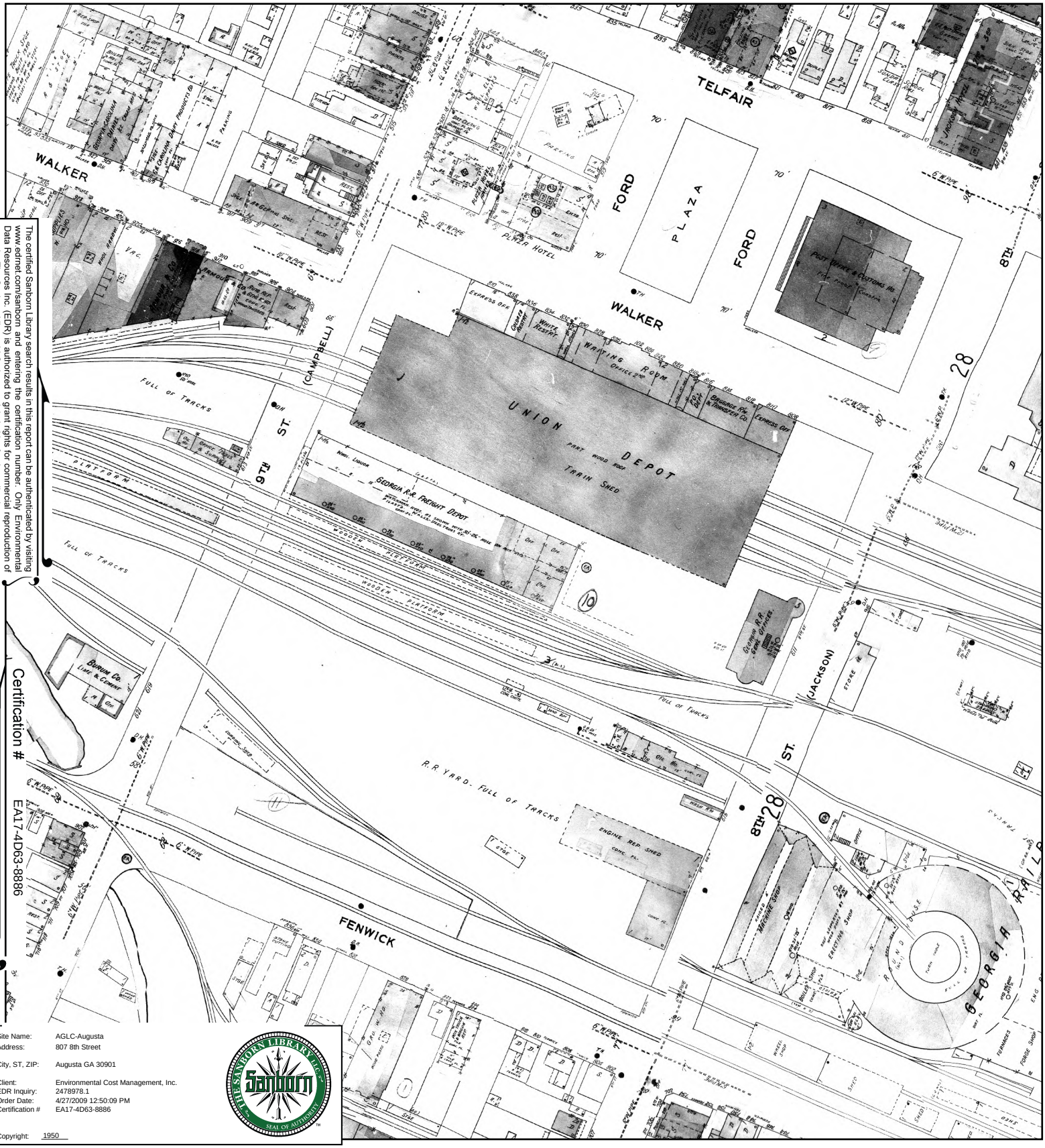
1950 Certified Sanborn Map



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Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1950

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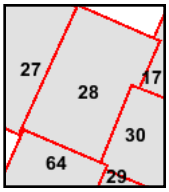

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Volume 1, Sheet 30
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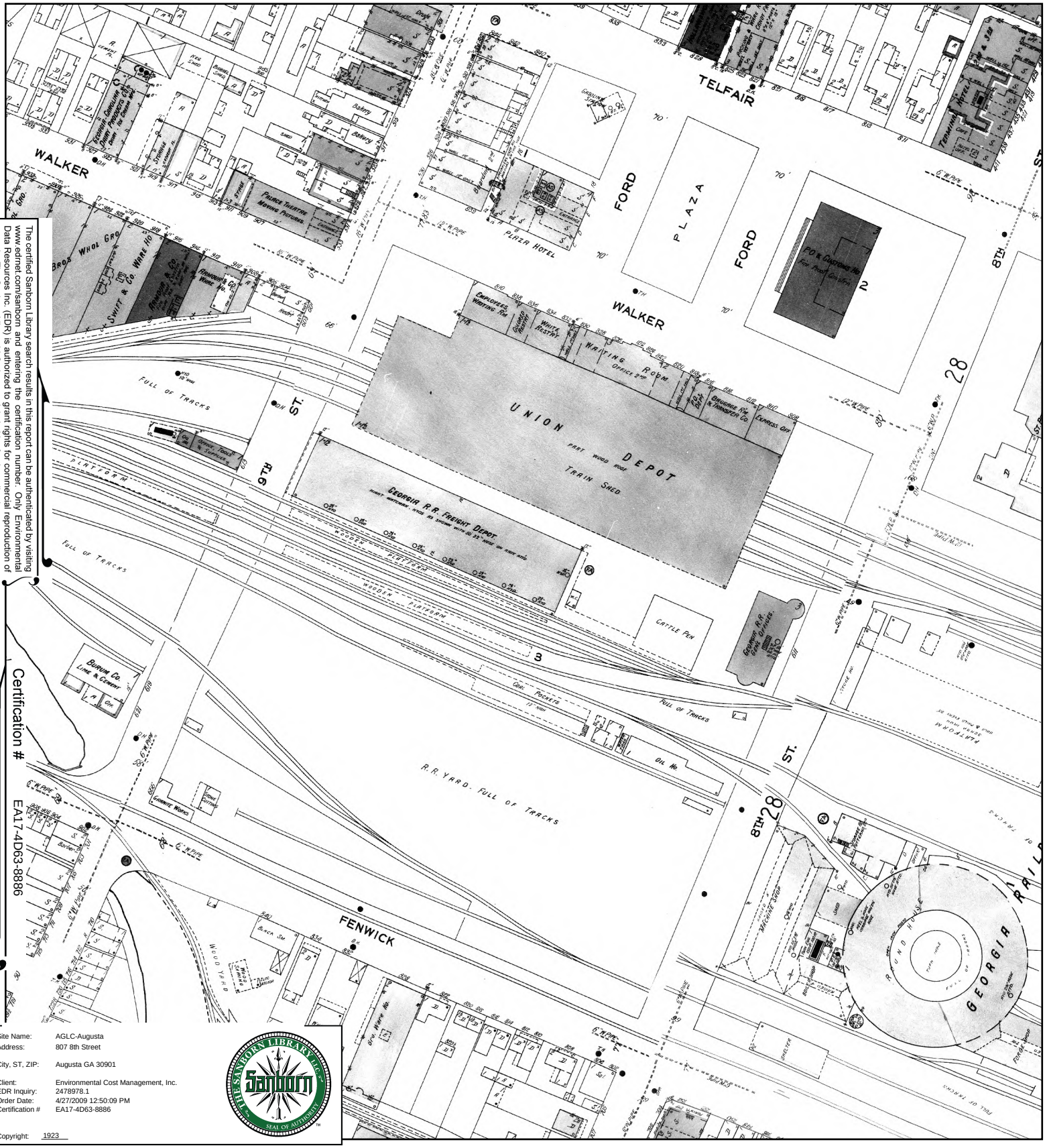
1923 Certified Sanborn Map



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Certification #	EA17-4D63-8886

Copyright: 1923

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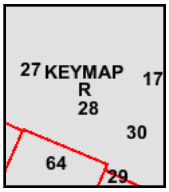

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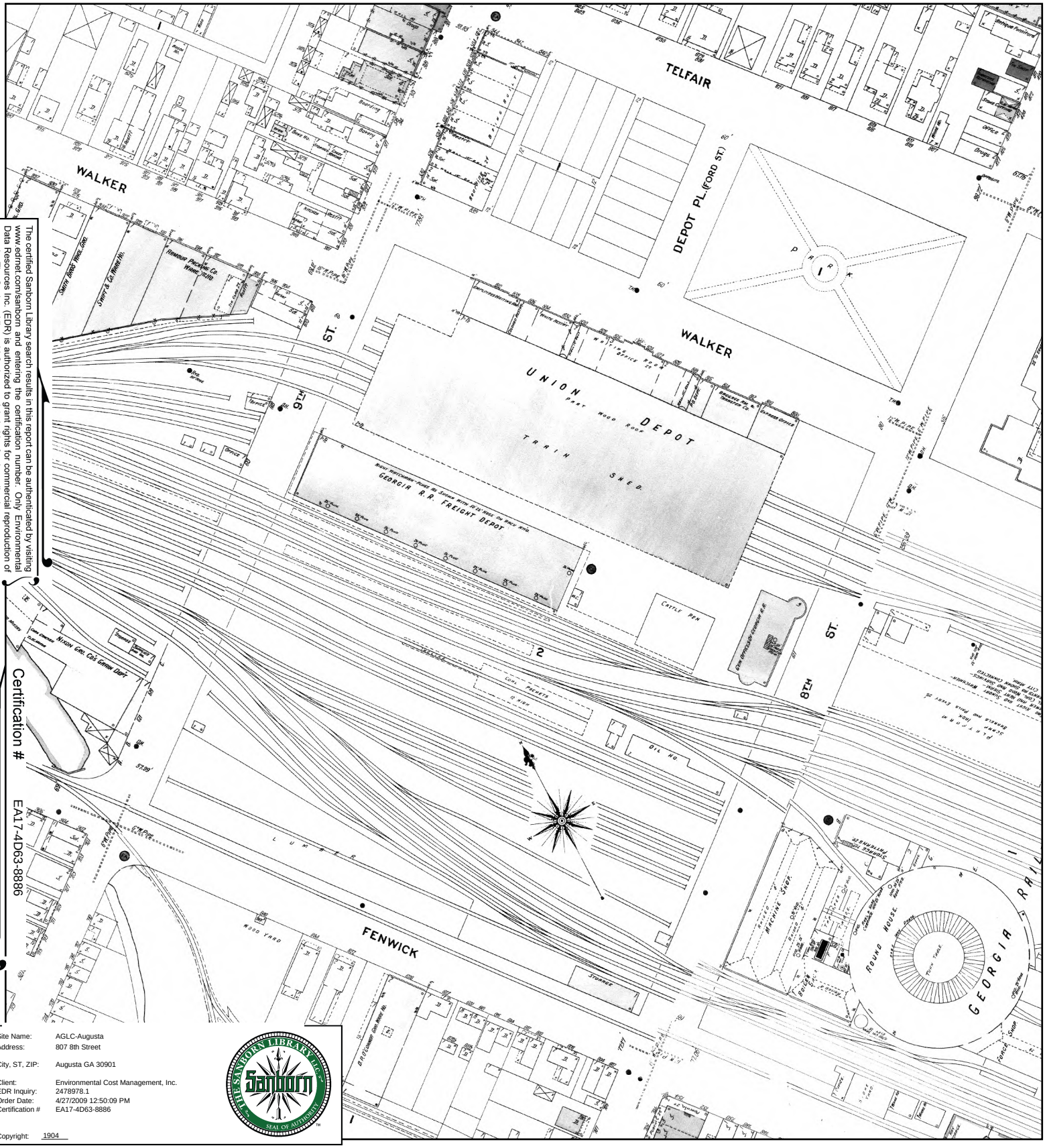
Volume 2, Sheet KEYMAP
Volume 2, Sheet R
Volume 1, Sheet 17
Volume 1, Sheet 27
Volume 1, Sheet 28
Volume 1, Sheet 29
Volume 1, Sheet 30

N

1904 Certified Sanborn Map



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City, ST, ZIP:	Augusta GA 30901
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EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1904

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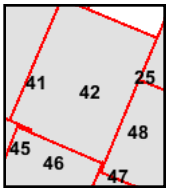
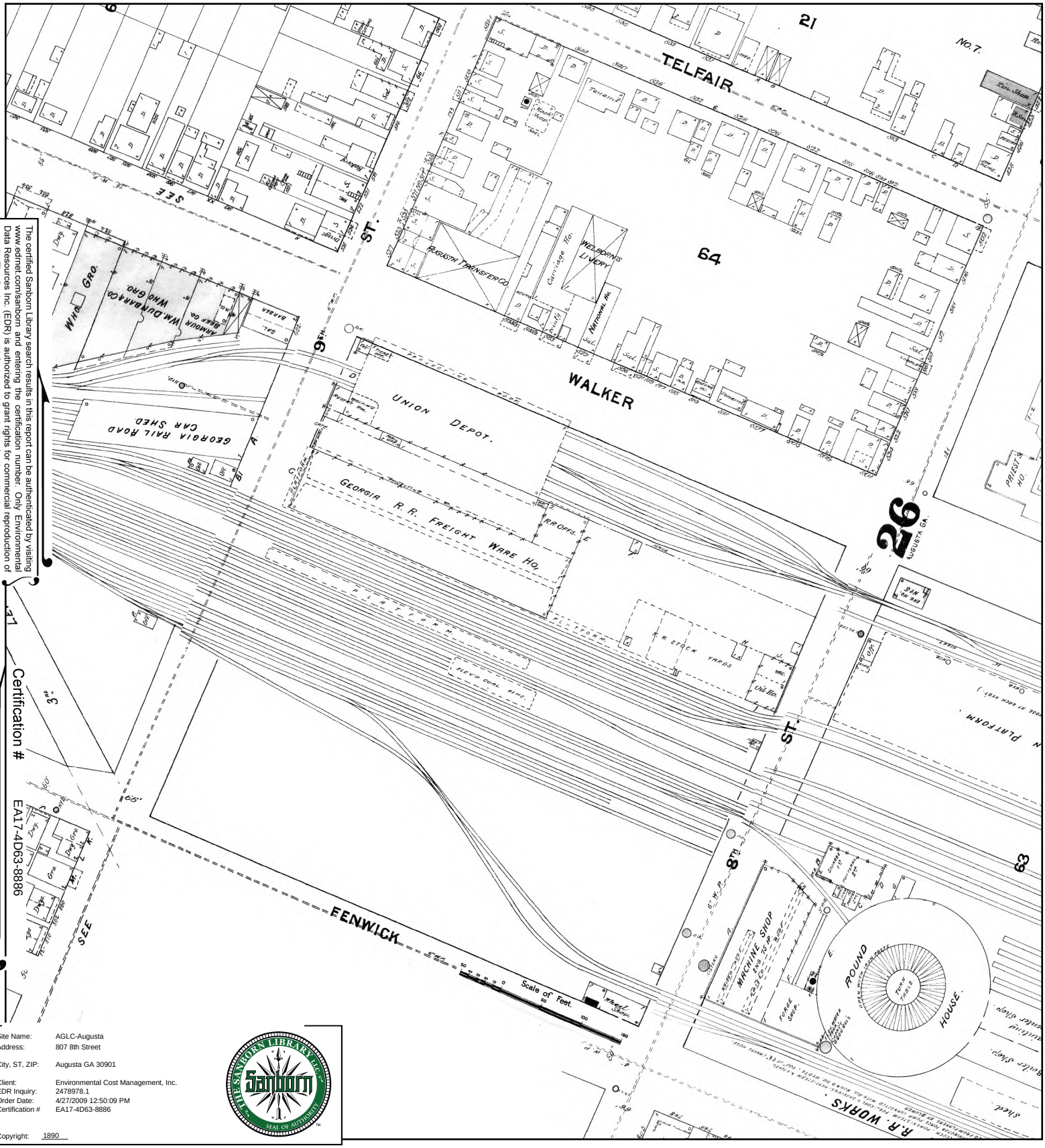


Volume 1, Sheet 25
Volume 1, Sheet 41
Volume 1, Sheet 42
Volume 1, Sheet 45
Volume 1, Sheet 46
Volume 1, Sheet 47
Volume 1, Sheet 48

N

1890 Certified Sanborn Map



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Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886
Copyright:	1890

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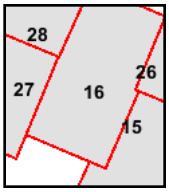
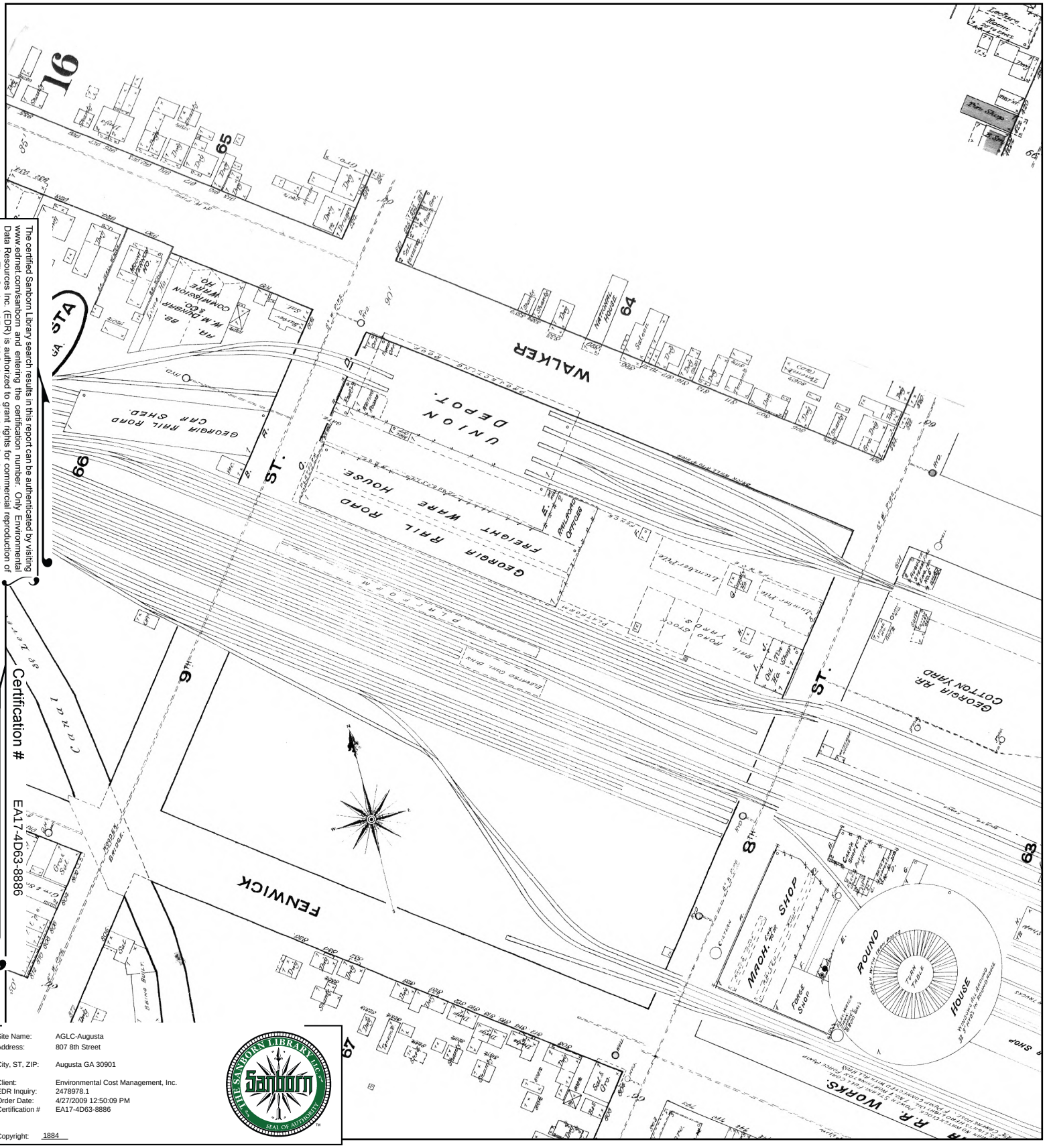


Volume 1, Sheet 15
Volume 1, Sheet 16
Volume 1, Sheet 26
Volume 1, Sheet 27
Volume 1, Sheet 28

0 Feet 150 300 600

N

1884 Certified Sanborn Map



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Certification # EA17-4D63-8886

Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1884

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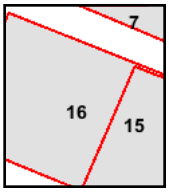

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Volume 1, Sheet 16

N

AGLC-Augusta
807 8th Street
Augusta, GA 30901

Inquiry Number: 2478978.1
April 27, 2009

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

4/27/09

Site Name:
AGLC-Augusta
807 8th Street
Augusta, GA 30901

Client Name:
Environmental Cost
660 Baker Street
Costa Mesa, CA 92626

EDR Inquiry # 2478978.1

Contact: Andrew Campbell

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Environmental Cost Management, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: AGLC-Augusta
Address: 807 8th Street
City, State, Zip: Augusta, GA 30901
Cross Street:
P.O. # NA
Project: AGLC-Augusta SC
Certification # EA17-4D63-8886

Sanborn® Library search results
Certification # EA17-4D63-8886

Maps Provided:

1884	1954
1890	1960
1904	1970
1923	
1950	
1953	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Certified Sanborn® Map Report Enhancements for 2009

The accompanying Certified Sanborn Map Report reflects a number of enhancements that make it easier for you to review these historical maps. EDR has digitally joined together the more than one million fire insurance maps from the Sanborn Library collection so that your target property is centered, making it easier for you to review adjoining properties. Here is a list of the new features:

· Your target property is centered on each map. You can quickly locate your target property and view adjoining properties. Plus, adjoining properties are included more often, reducing your need to refer to additional maps.

· All maps are now displayed at a uniform scale. This makes it easier for you to view changes to the property over time.

· We've increased coverage by adding thousands of new maps from 40 cities for years 1994-2007.

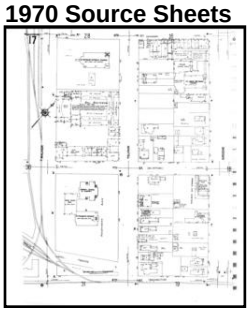
· A new Map Key and Sheet Thumbnails let you reference sheet numbers, year and volume of original Sanborn Map panels used for this report.

For more information about the new enhancements to the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

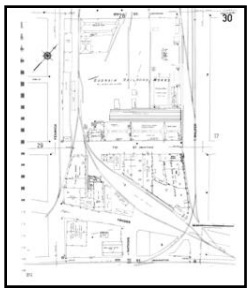
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets



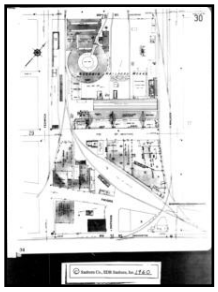
Volume 1, Sheet 17



Volume 1, Sheet 30

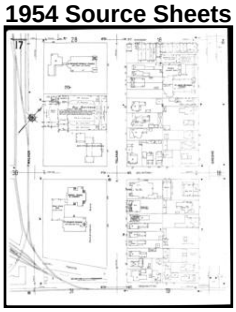
1960 Source Sheets

Volume 1, Sheet 17

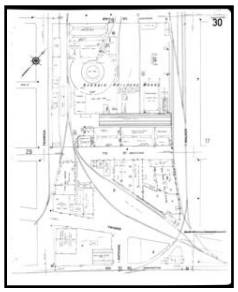


Volume 1, Sheet 30

1954 Source Sheets



Volume 1, Sheet 17



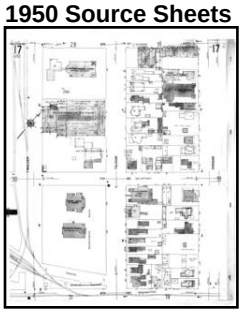
Volume 1, Sheet 30

1953 Source Sheets

Volume 1, Sheet 17

Volume 1, Sheet 30

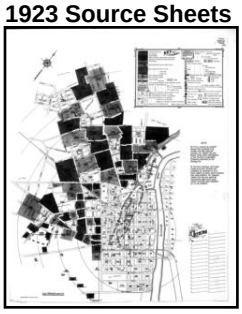
1950 Source Sheets



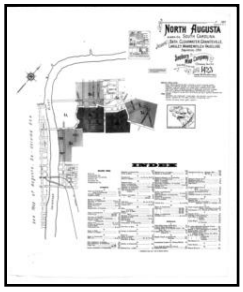
Volume 1, Sheet 17

Volume 1, Sheet 30

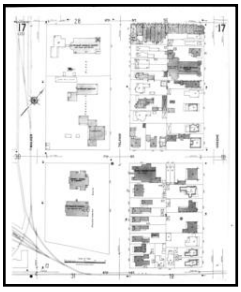
1923 Source Sheets



Volume 2, Sheet KEYMAP



Volume 2, Sheet R



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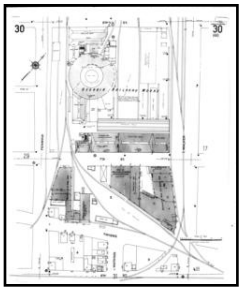
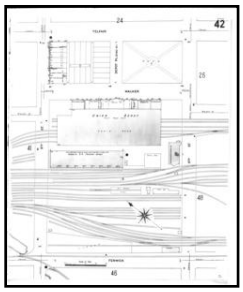


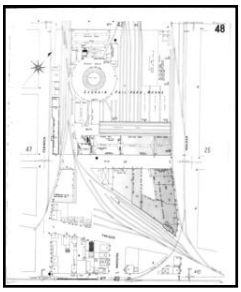
Volume 1, Sheet 30

1904 Source Sheets

Volume 1, Sheet 25



Volume 1, Sheet 42



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1890 Source Sheets

Volume 1, Sheet 15

Volume 1, Sheet 26

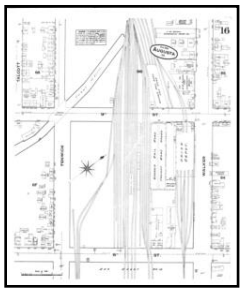
1884 Source Sheets

Volume 1, Sheet 6

Volume 1, Sheet 7

Volume 1, Sheet 14

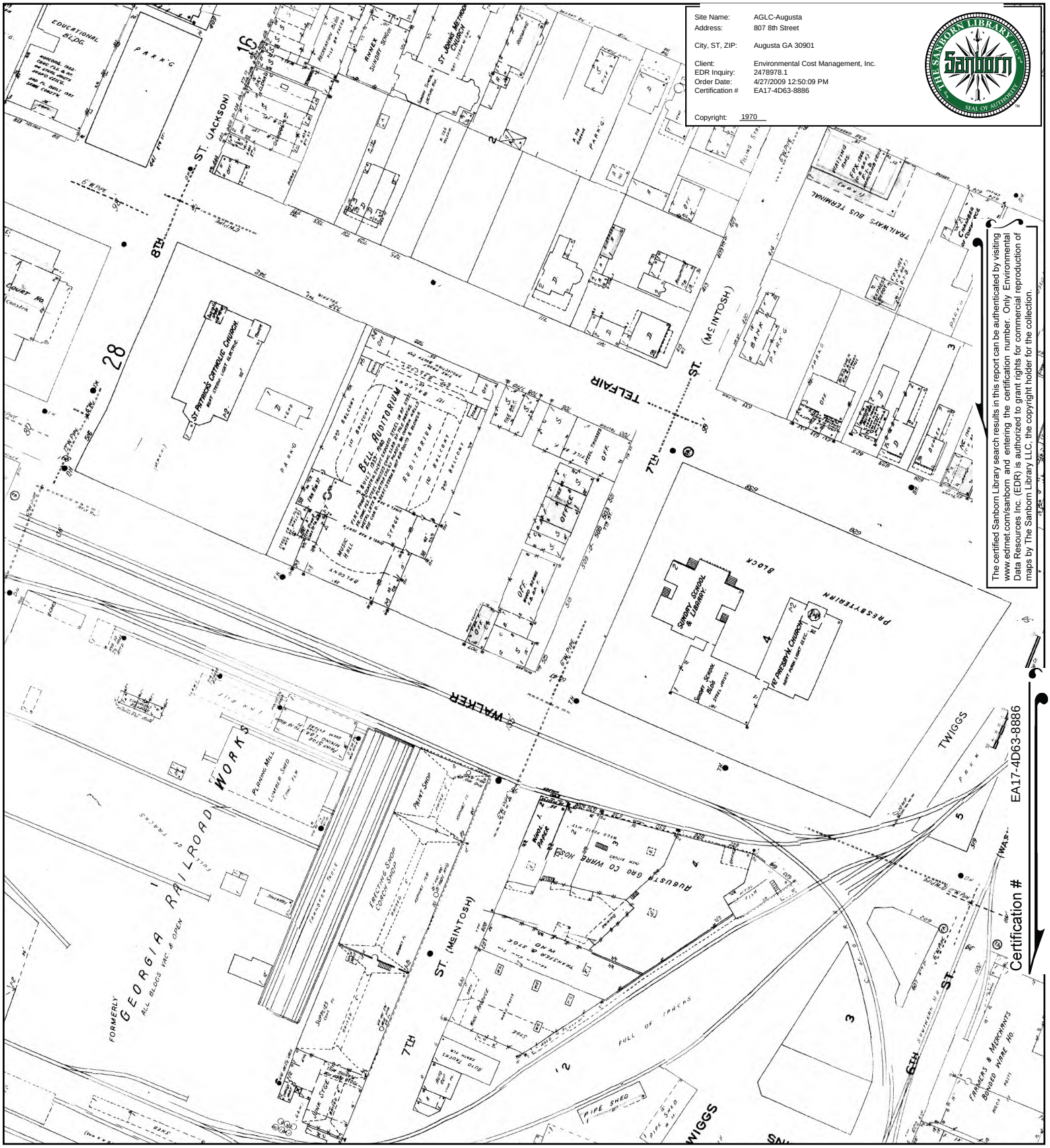
Volume 1, Sheet 15



Volume 1, Sheet 16

1970 Certified Sanborn Map

Site Name: AGLC-Augusta
Address: 807 8th Street
City, ST, ZIP: Augusta GA 30901
Client: Environmental Cost Management, Inc.
EDR Inquiry: 2478978.1
Order Date: 4/27/2009 12:50:09 PM
Certification # EA17-4D63-8886
Copyright: 1970



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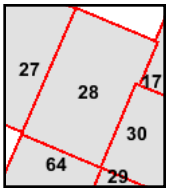

Volume 1, Sheet 17
Volume 1, Sheet 30

N

1960 Certified Sanborn Map

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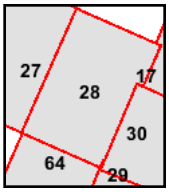

Volume 1, Sheet 17
Volume 1, Sheet 30

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1954 Certified Sanborn Map

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City, ST, ZIP:	Augusta GA 30901
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Certification #	EA17-4D63-8886
Copyright:	1954

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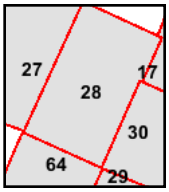

Volume 1, Sheet 17
Volume 1, Sheet 30

N

1953 Certified Sanborn Map

Site Name: AGLC-Augusta
Address: 807 8th Street
City, ST, ZIP: Augusta GA 30901
Client: Environmental Cost Management, Inc.
EDR Inquiry: 2478978.1
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Certification # EA17-4D63-8886

Copyright: 1953

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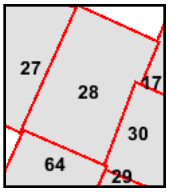

Volume 1, Sheet 17
Volume 1, Sheet 30

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1950 Certified Sanborn Map

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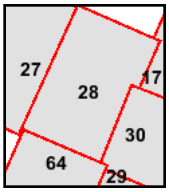

Volume 1, Sheet 17
Volume 1, Sheet 30

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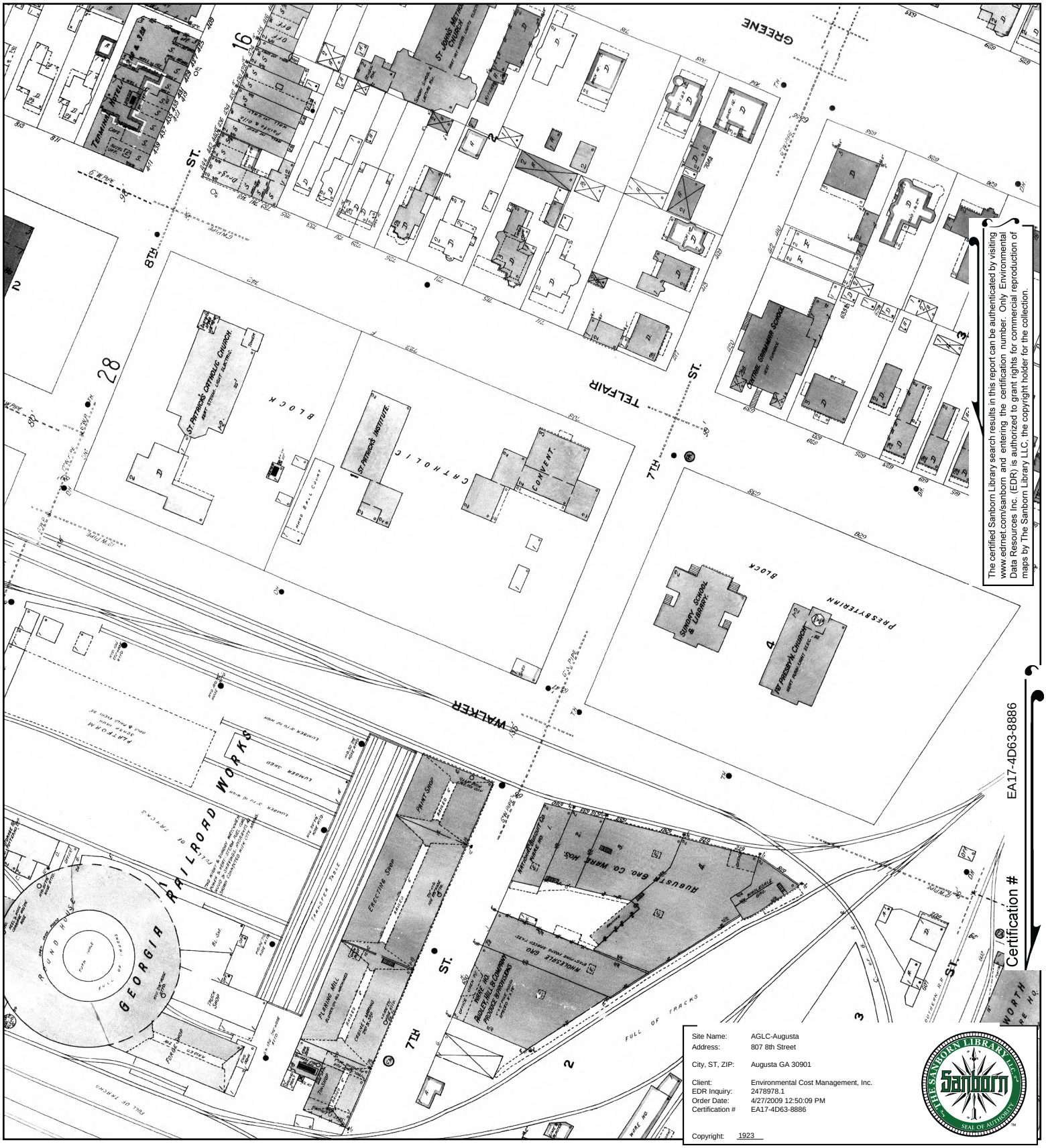
1923 Certified Sanborn Map



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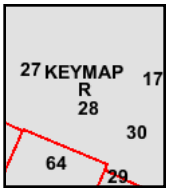

Volume 2, Sheet KEYMAP
Volume 2, Sheet R
Volume 1, Sheet 17
Volume 1, Sheet 30

N

1904 Certified Sanborn Map

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Certification # EA17-4D63-8886

This Certified Sanborn Map combines the following sheets (thumbnails on page 3).

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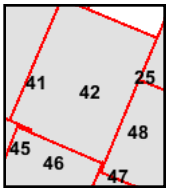

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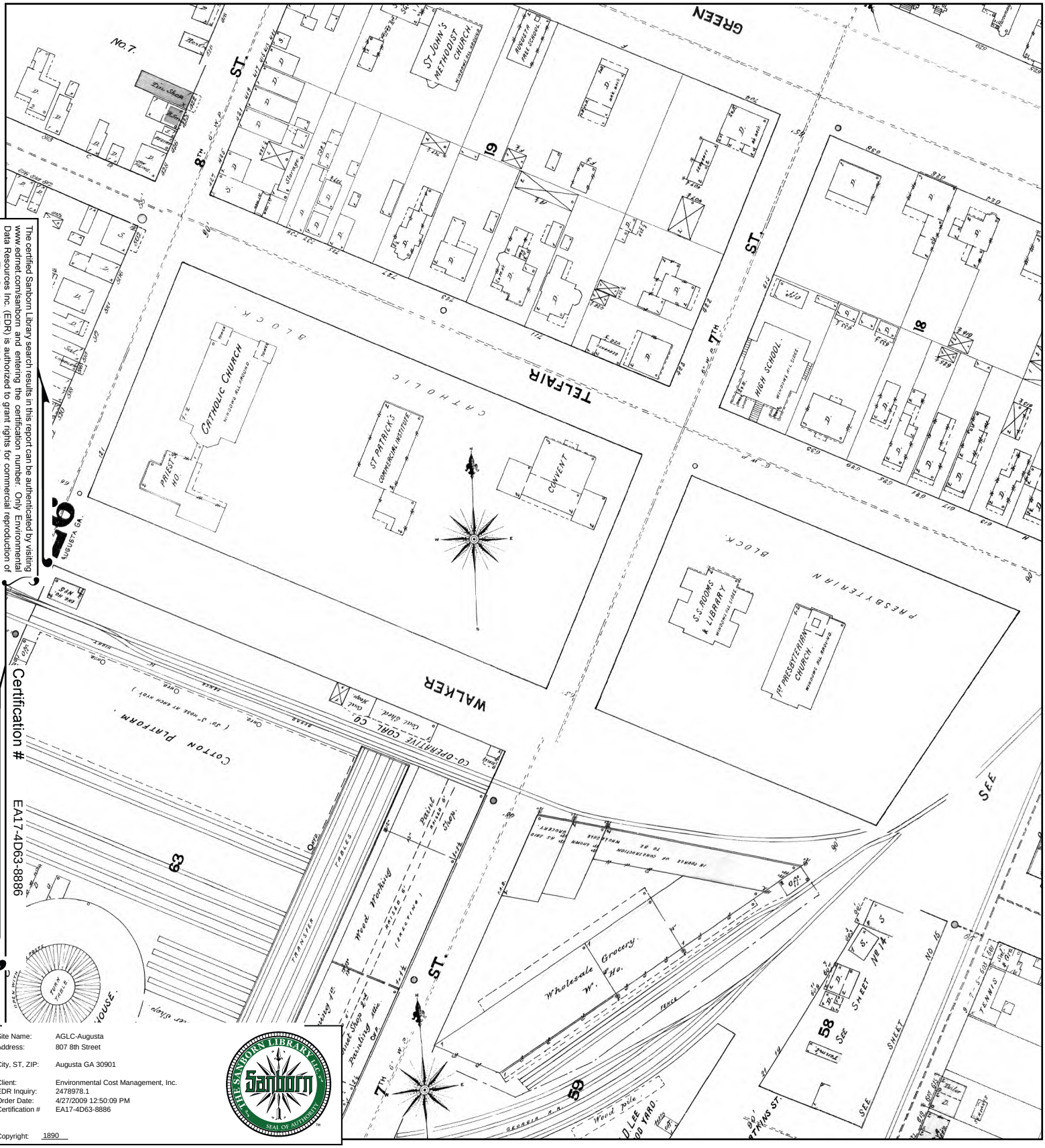
Volume 1, Sheet 42
Volume 1, Sheet 48

N

1890 Certified Sanborn Map



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Certification # EA17-4D63-8886

Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886
Copyright:	1890

This Certified Sanborn Map combines the following sheets (thumbnails on page 3).

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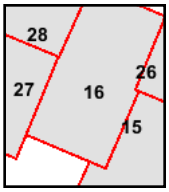

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N

1884 Certified Sanborn Map

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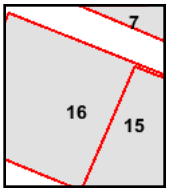

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Volume 1, Sheet 7
Volume 1, Sheet 14
Volume 1, Sheet 15
Volume 1, Sheet 16

N

AGLC-Augusta
807 8th Street
Augusta, GA 30901

Inquiry Number: 2478978.1
April 27, 2009

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

4/27/09

Site Name:
AGLC-Augusta
807 8th Street
Augusta, GA 30901

Client Name:
Environmental Cost
660 Baker Street
Costa Mesa, CA 92626

EDR Inquiry # 2478978.1

Contact: Andrew Campbell

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Environmental Cost Management, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: AGLC-Augusta
Address: 807 8th Street
City, State, Zip: Augusta, GA 30901
Cross Street:
P.O. # NA
Project: AGLC-Augusta SC
Certification # EA17-4D63-8886

Sanborn® Library search results
Certification # EA17-4D63-8886

Maps Provided:

1884	1954
1890	1960
1904	1970
1923	
1950	
1953	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Certified Sanborn® Map Report Enhancements for 2009

The accompanying Certified Sanborn Map Report reflects a number of enhancements that make it easier for you to review these historical maps. EDR has digitally joined together the more than one million fire insurance maps from the Sanborn Library collection so that your target property is centered, making it easier for you to review adjoining properties. Here is a list of the new features:

· Your target property is centered on each map. You can quickly locate your target property and view adjoining properties. Plus, adjoining properties are included more often, reducing your need to refer to additional maps.

· All maps are now displayed at a uniform scale. This makes it easier for you to view changes to the property over time.

· We've increased coverage by adding thousands of new maps from 40 cities for years 1994-2007.

· A new Map Key and Sheet Thumbnails let you reference sheet numbers, year and volume of original Sanborn Map panels used for this report.

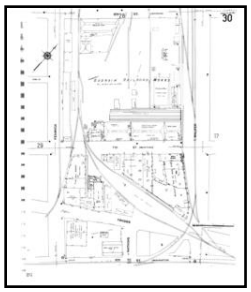
For more information about the new enhancements to the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

Sanborn Sheet Thumbnails

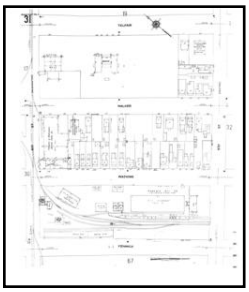
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets

Volume 1, Sheet 29



Volume 1, Sheet 30



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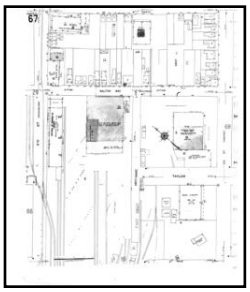
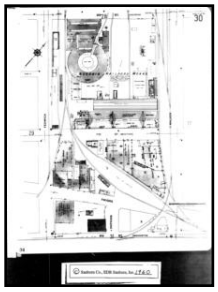


Volume 1, Sheet 67

1960 Source Sheets

Volume 1, Sheet 29



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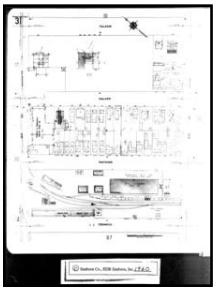

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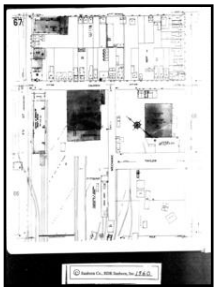
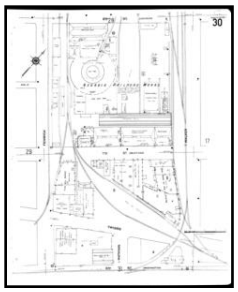


Volume 1, Sheet 67

1954 Source Sheets

Volume 1, Sheet 29



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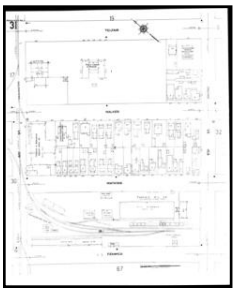

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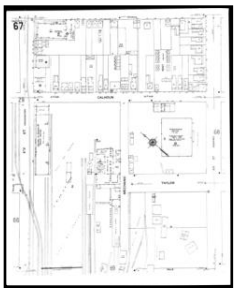
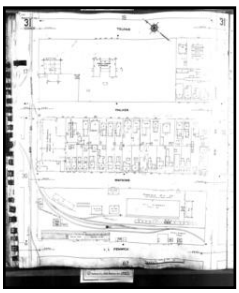


Volume 1, Sheet 67

1953 Source Sheets

Volume 1, Sheet 29

Volume 1, Sheet 30



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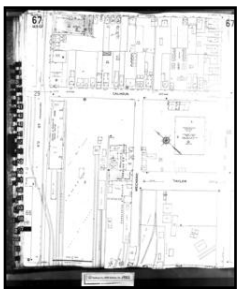


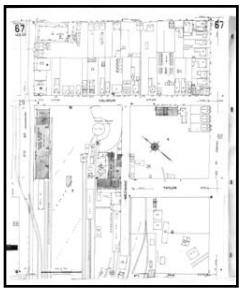
Volume 1, Sheet 67

1950 Source Sheets

Volume 1, Sheet 29

Volume 1, Sheet 30

Volume 1, Sheet 31



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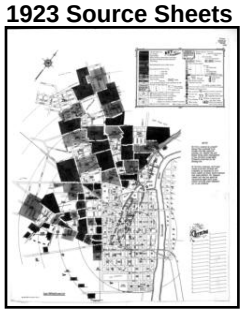

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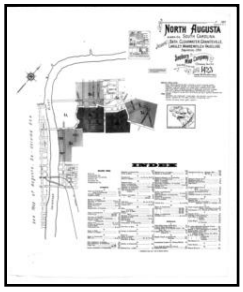

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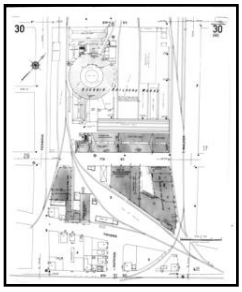

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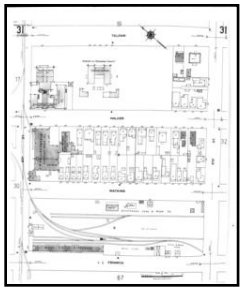

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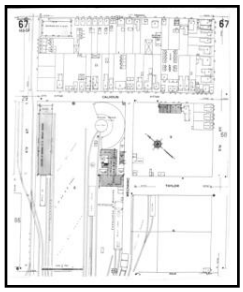

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1904 Source Sheets

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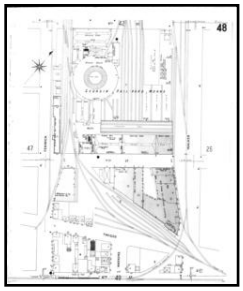

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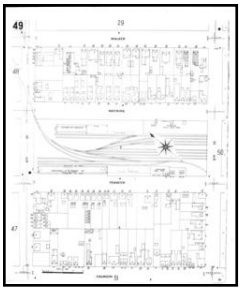

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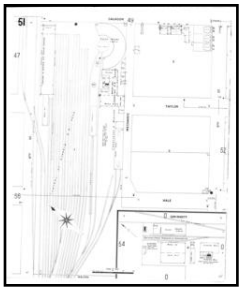

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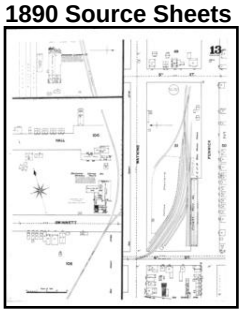

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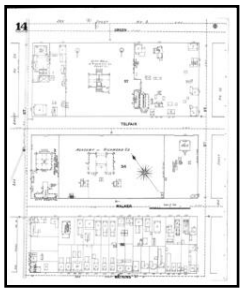

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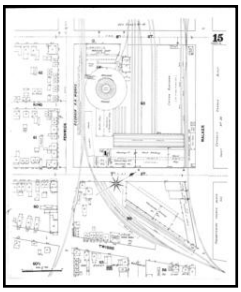

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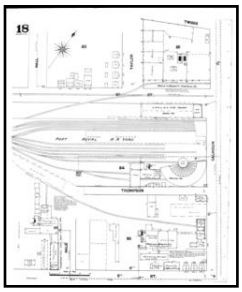

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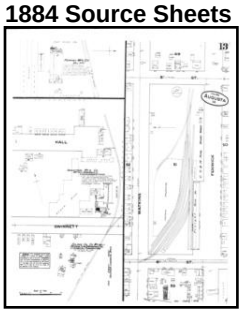

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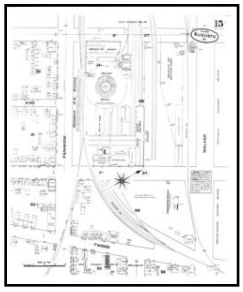

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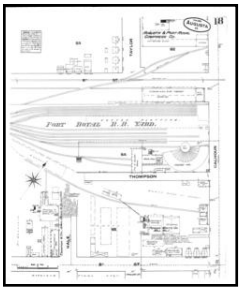

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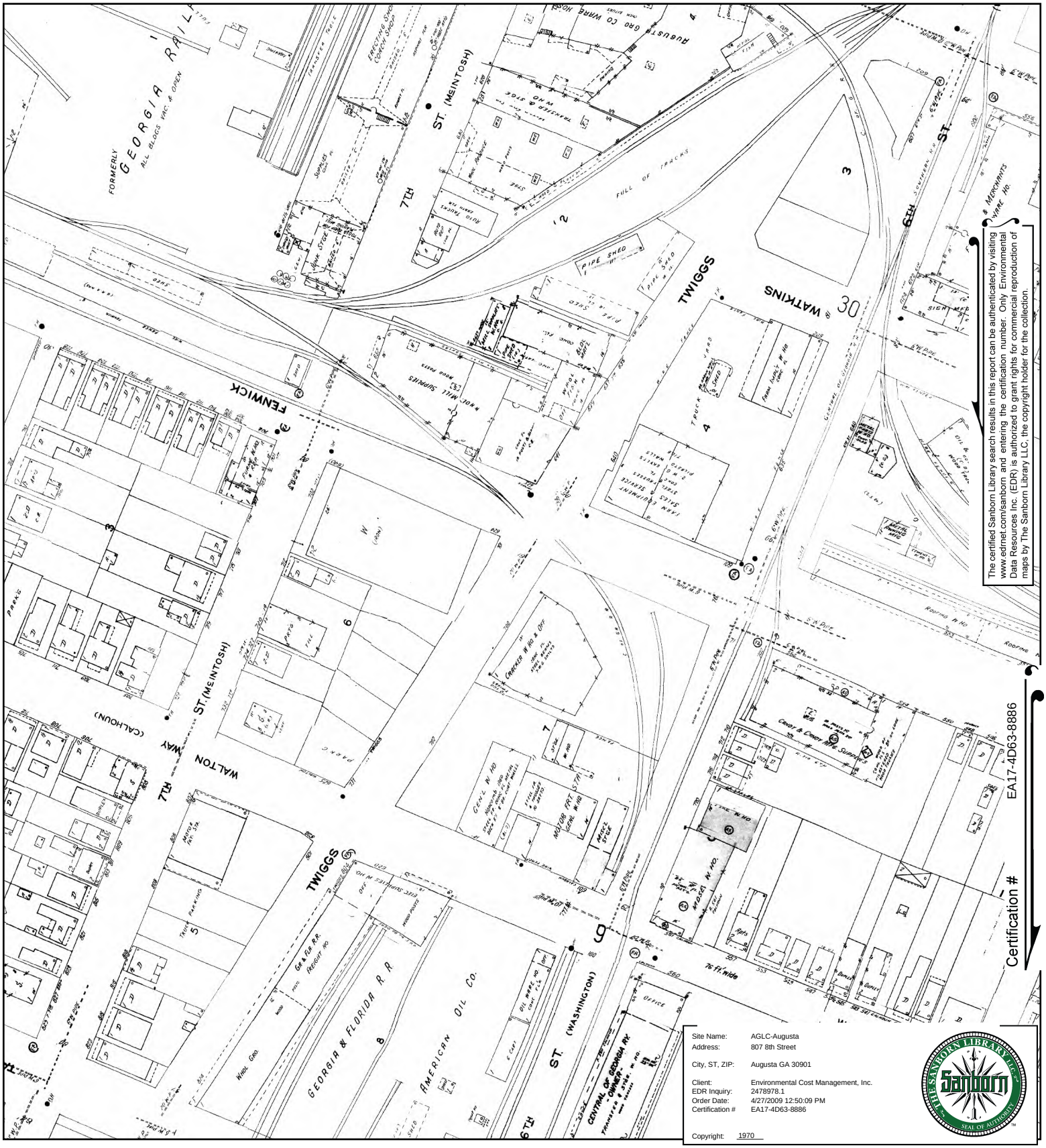
1970 Certified Sanborn Map



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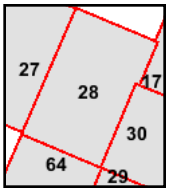

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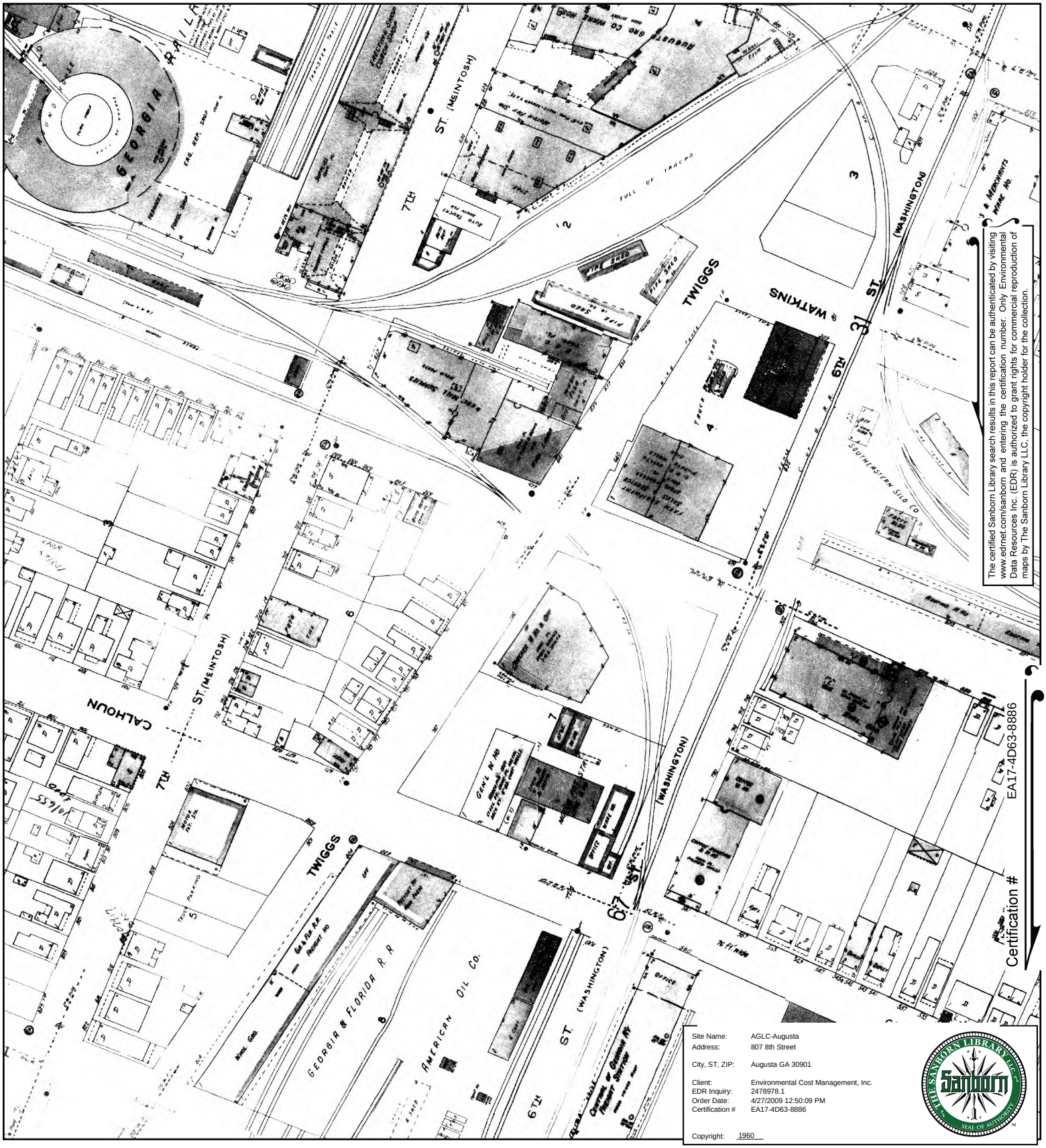
Volume 1, Sheet 30
Volume 1, Sheet 31
Volume 1, Sheet 67

N

1960 Certified Sanborn Map



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Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1960

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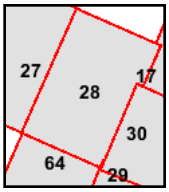

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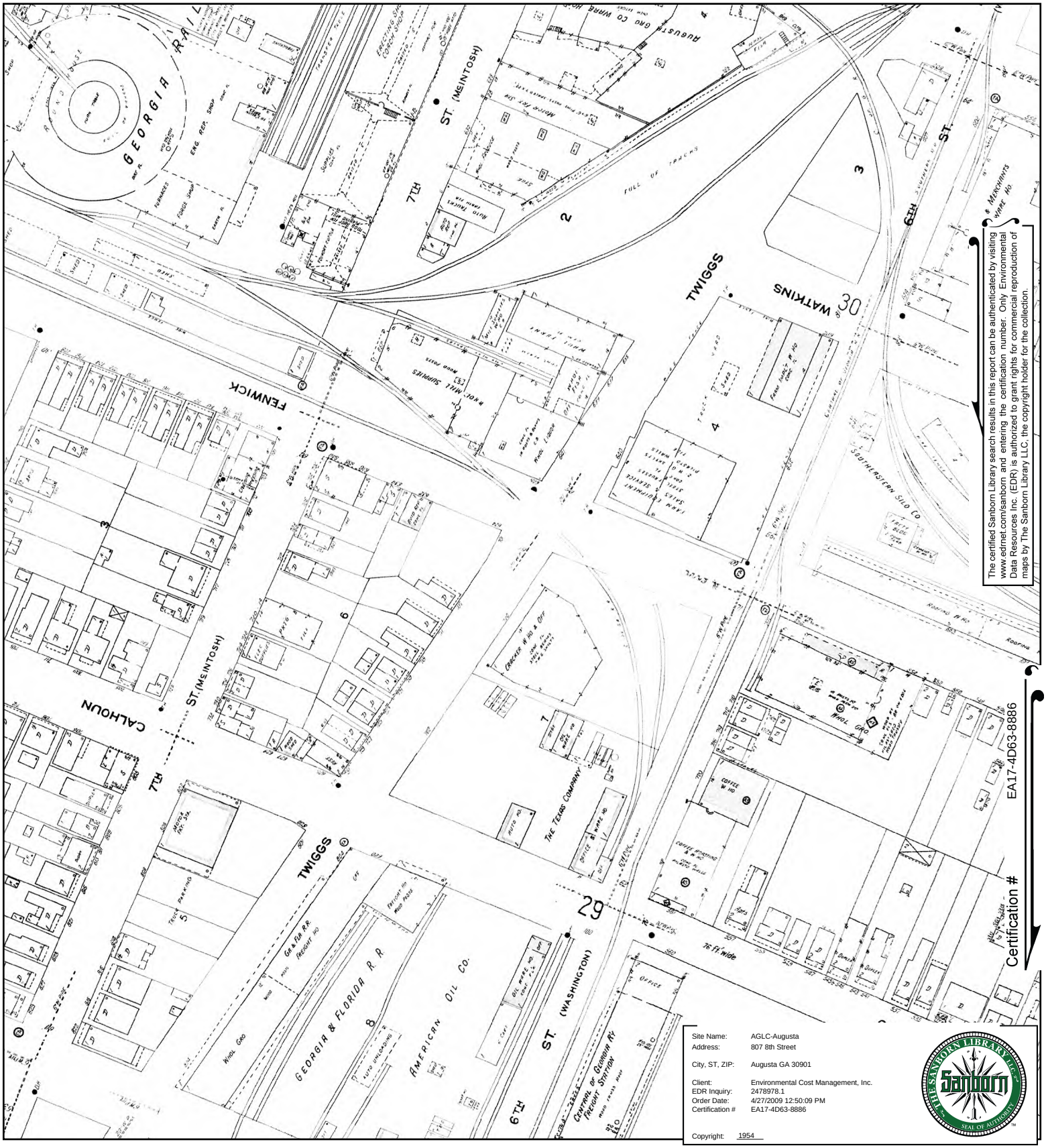
Volume 1, Sheet 31
Volume 1, Sheet 67

N

1954 Certified Sanborn Map



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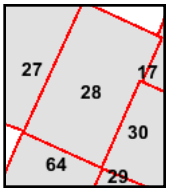

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Volume 1, Sheet 31
Volume 1, Sheet 67

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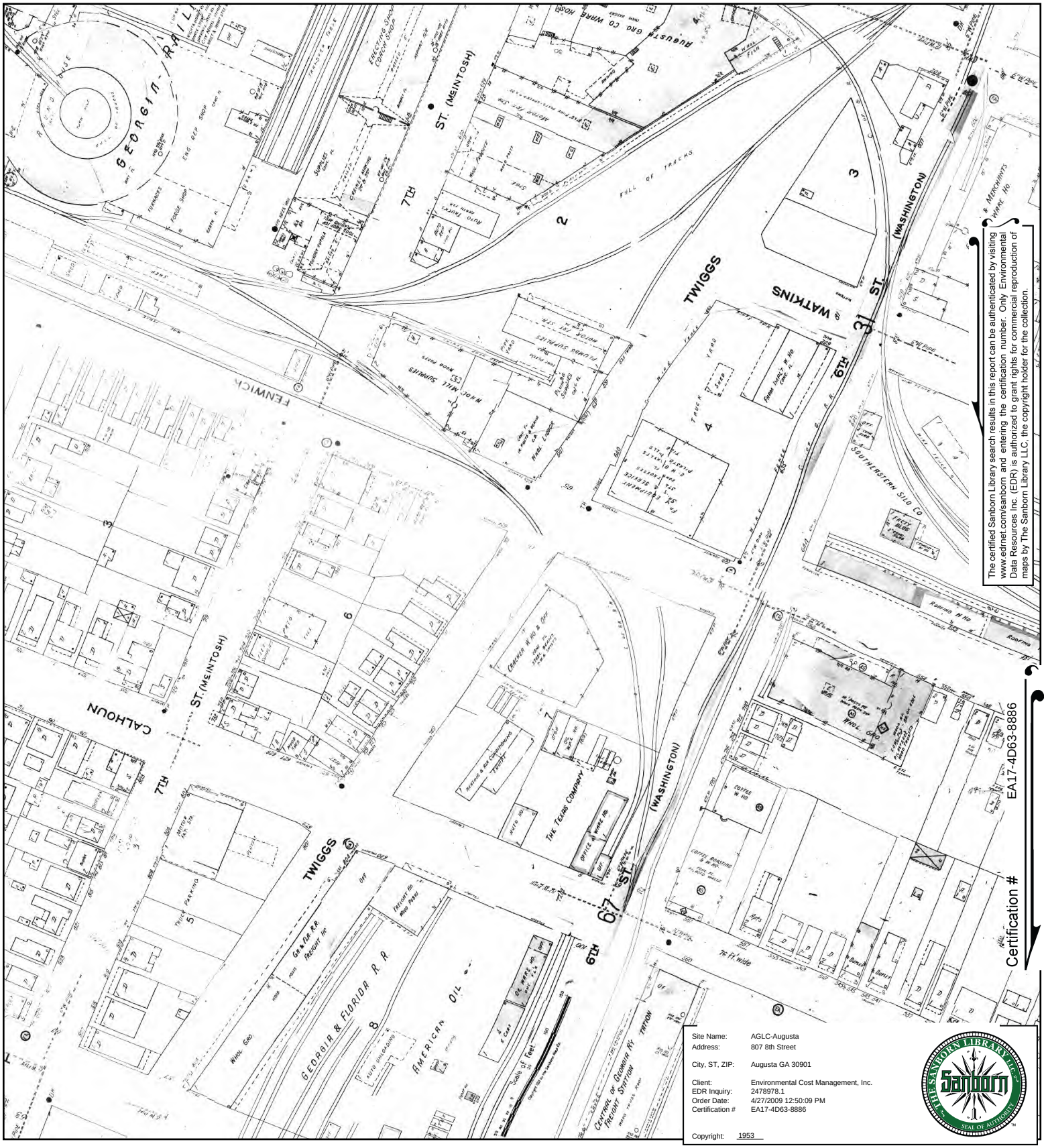

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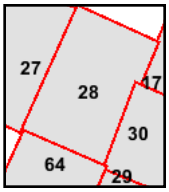

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Volume 1, Sheet 31
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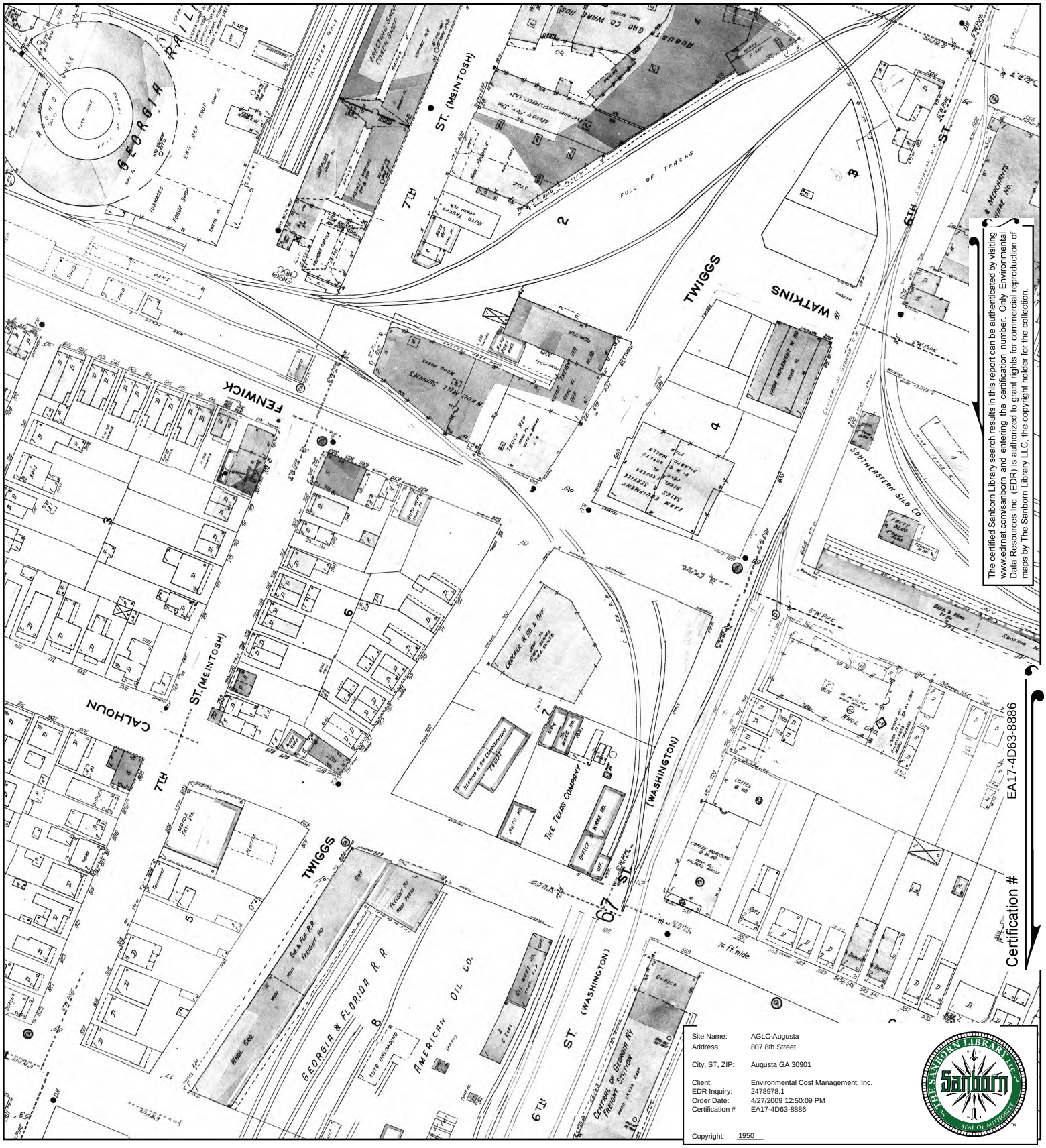
1950 Certified Sanborn Map



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Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886
Copyright:	1950

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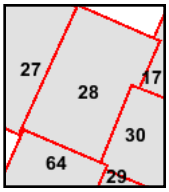

Volume 1, Sheet 29
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Volume 1, Sheet 31
Volume 1, Sheet 67

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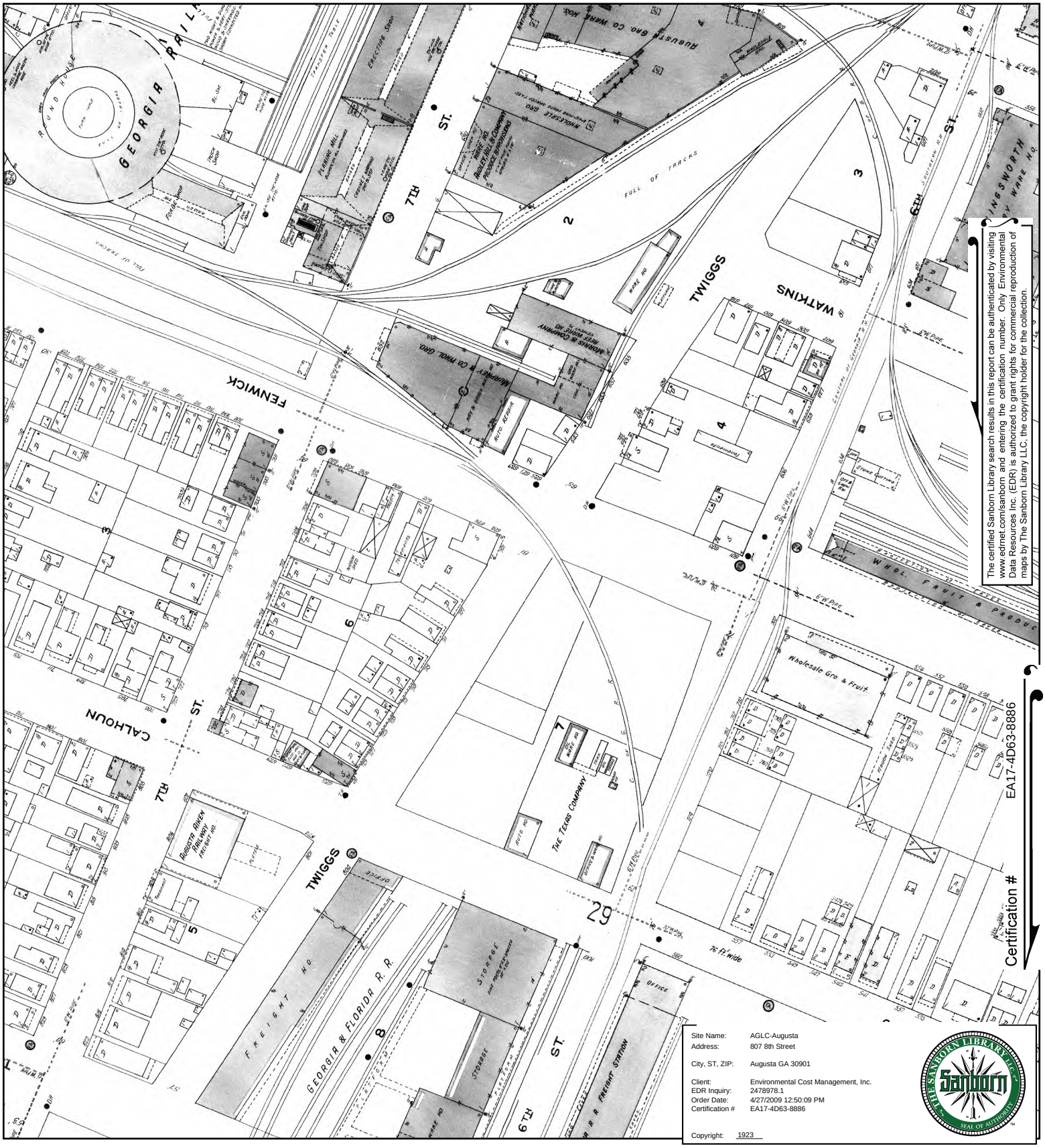
1923 Certified Sanborn Map



Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1923

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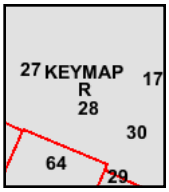
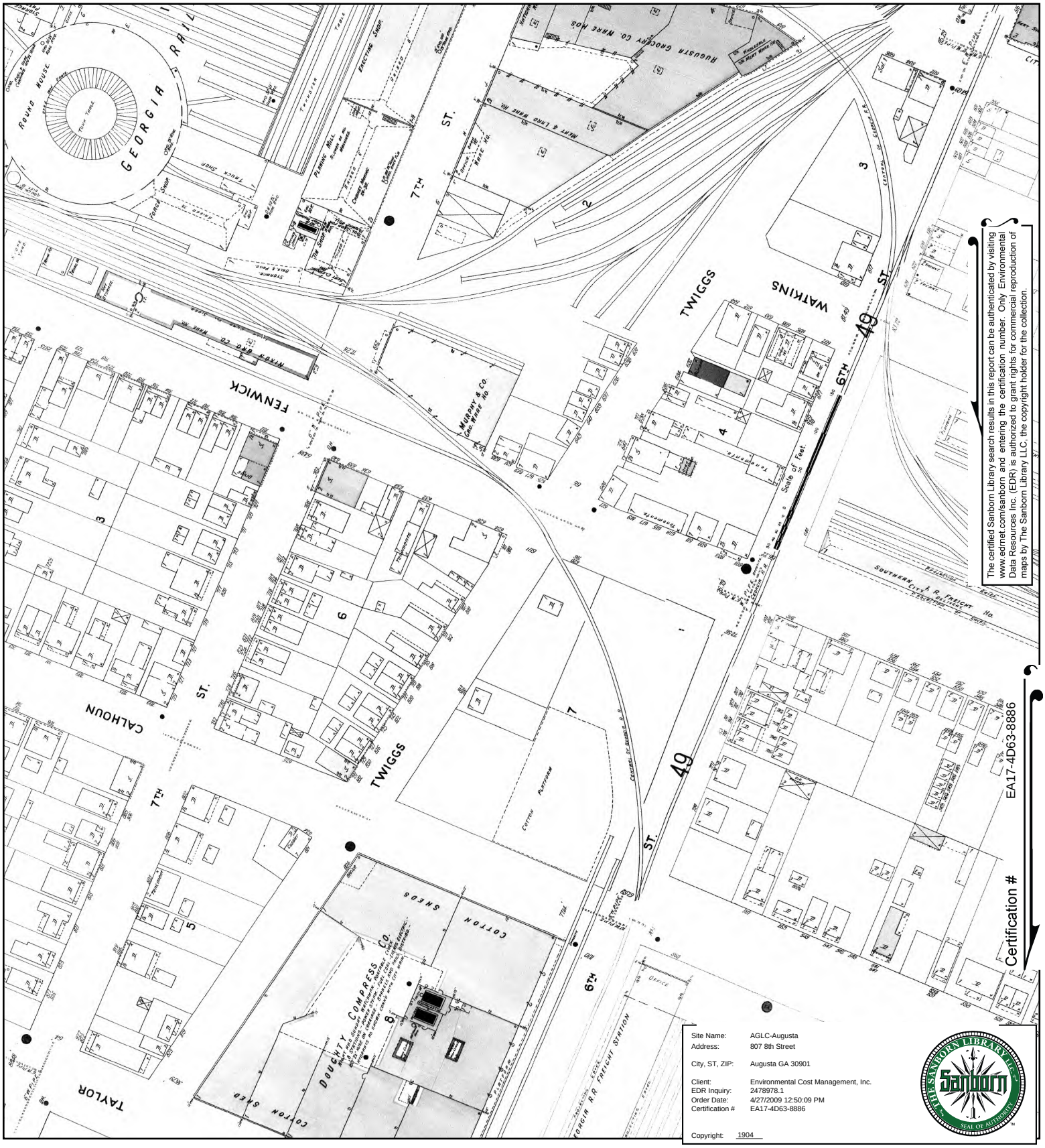


Volume 2, Sheet KEYMAP
Volume 1, Sheet 67
Volume 2, Sheet R
Volume 1, Sheet 29
Volume 1, Sheet 30
Volume 1, Sheet 31

N

1904 Certified Sanborn Map



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Certification # EA17-4D63-8886

Site Name:	AGLC-Augusta
Address:	807 8th Street
City, ST, ZIP:	Augusta GA 30901
Client:	Environmental Cost Management, Inc.
EDR Inquiry:	2478978.1
Order Date:	4/27/2009 12:50:09 PM
Certification #	EA17-4D63-8886

Copyright: 1904

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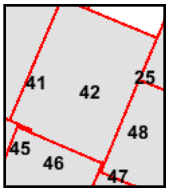
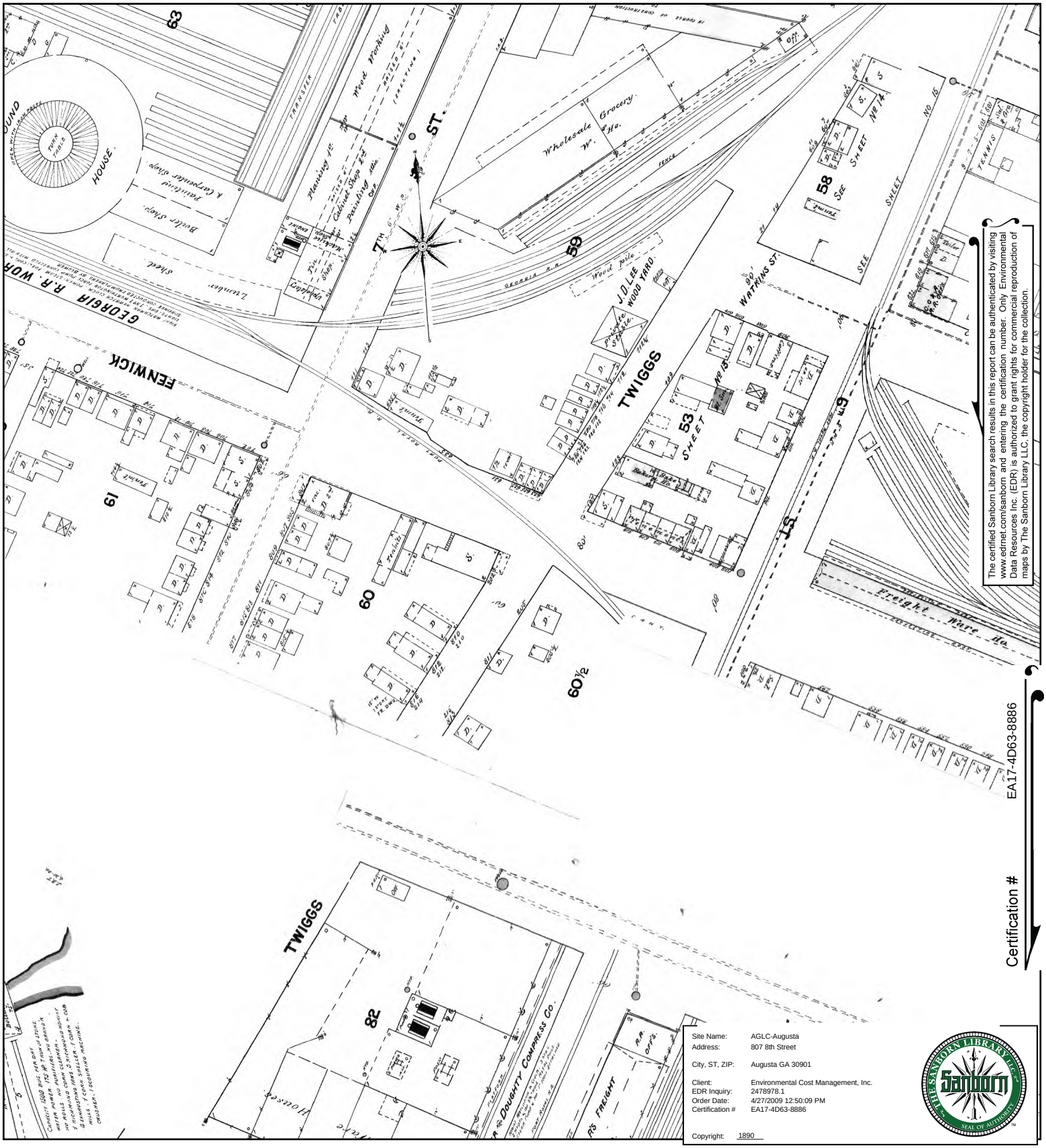
0 Feet 150 300 600



Volume 1, Sheet 47
Volume 1, Sheet 48
Volume 1, Sheet 49
Volume 1, Sheet 51

N

1890 Certified Sanborn Map



Site Name: AGLC-Augusta
Address: 807 8th Street

City, ST, ZIP: Augusta GA 30901

Client: Environmental Cost Management, Inc.
EDR Inquiry: 2478978.1
Order Date: 4/27/2009 12:50:09 PM
Certification # EA17-4D63-8886

Copyright: 1890

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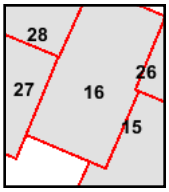
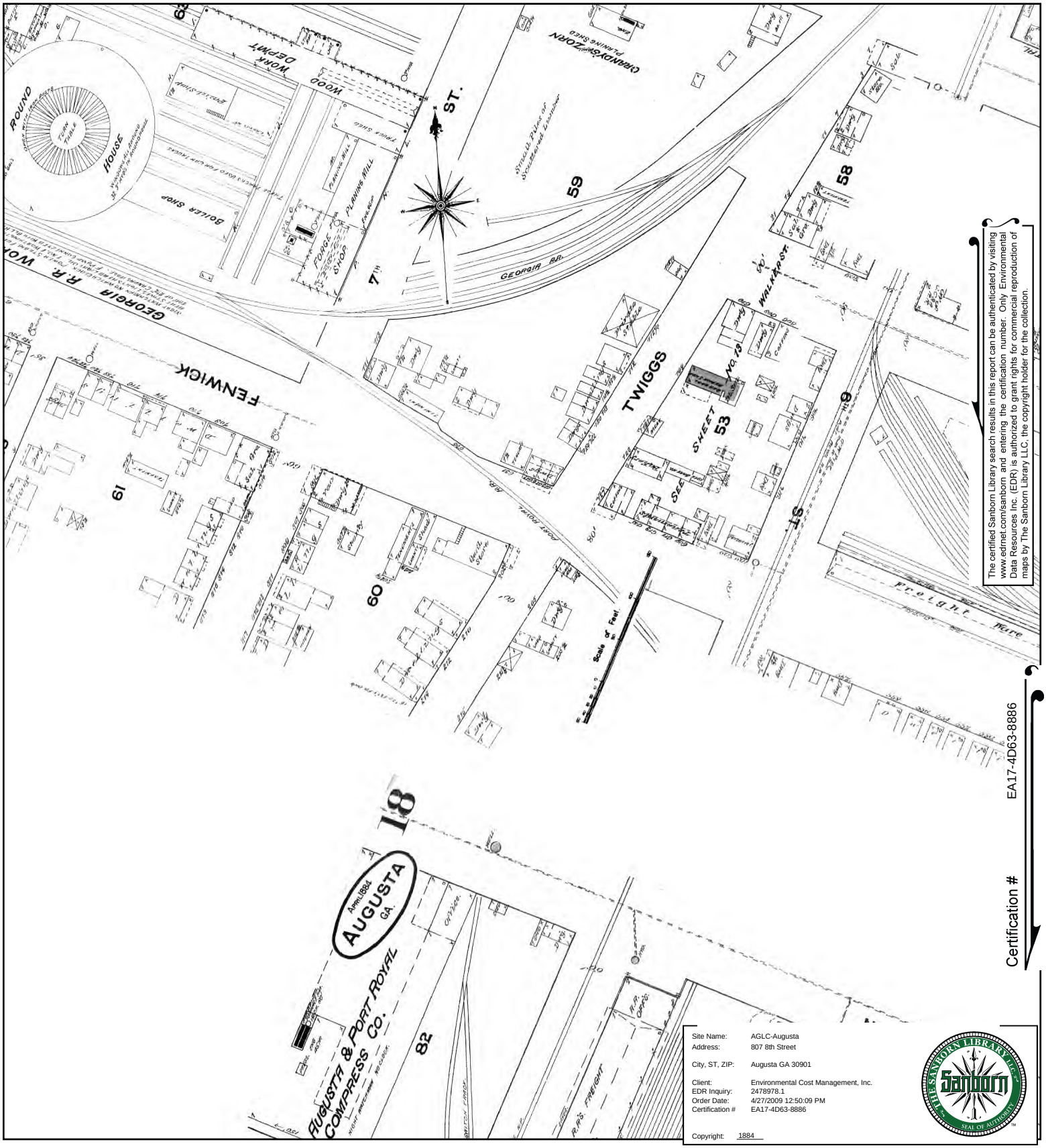


Volume 1, Sheet 13
Volume 1, Sheet 14
Volume 1, Sheet 15
Volume 1, Sheet 18

N

1884 Certified Sanborn Map



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Certification # EA17-4D63-8886

Site Name: AGLC-Augusta
Address: 807 8th Street
City, ST, ZIP: Augusta GA 30901
Client: Environmental Cost Management, Inc.
EDR Inquiry: 2478978.1
Order Date: 4/27/2009 12:50:09 PM
Certification # EA17-4D63-8886

Copyright: 1884

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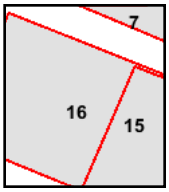
0 Feet 150 300 600



Volume 1, Sheet 13
Volume 1, Sheet 15
Volume 1, Sheet 18

N

APPENDIX J

December 2009 Revised SCM (electronically on CD)

4 Horizontal and Vertical Extent of Constituents of Interest in Soils

The geologic cross sections introduced in Section 3 (Figures 5 through 14) also present analytical data to demonstrate the horizontal and vertical extents of MGP impacts in the unsaturated soils and saturated zone materials, along with concentrations of COI in groundwater measured in soil borings and monitoring wells. This section characterizes the distribution of BPLM associated with the Site, presents soil background calculations, and addresses the horizontal and vertical extent of COI in the soil.

4.1 Criteria of BPLM Identification

The presence of BPLM identified during the RI has been primarily visual and qualitative. In order to describe soil conditions consistently, the following soil logging protocol was developed.

- Soils with strong odors will be noted with the associated head-space organic vapor monitor (OVM) readings. BPLM is associated with strong odors, but strong odors alone do not necessarily indicate the presence of BPLM.

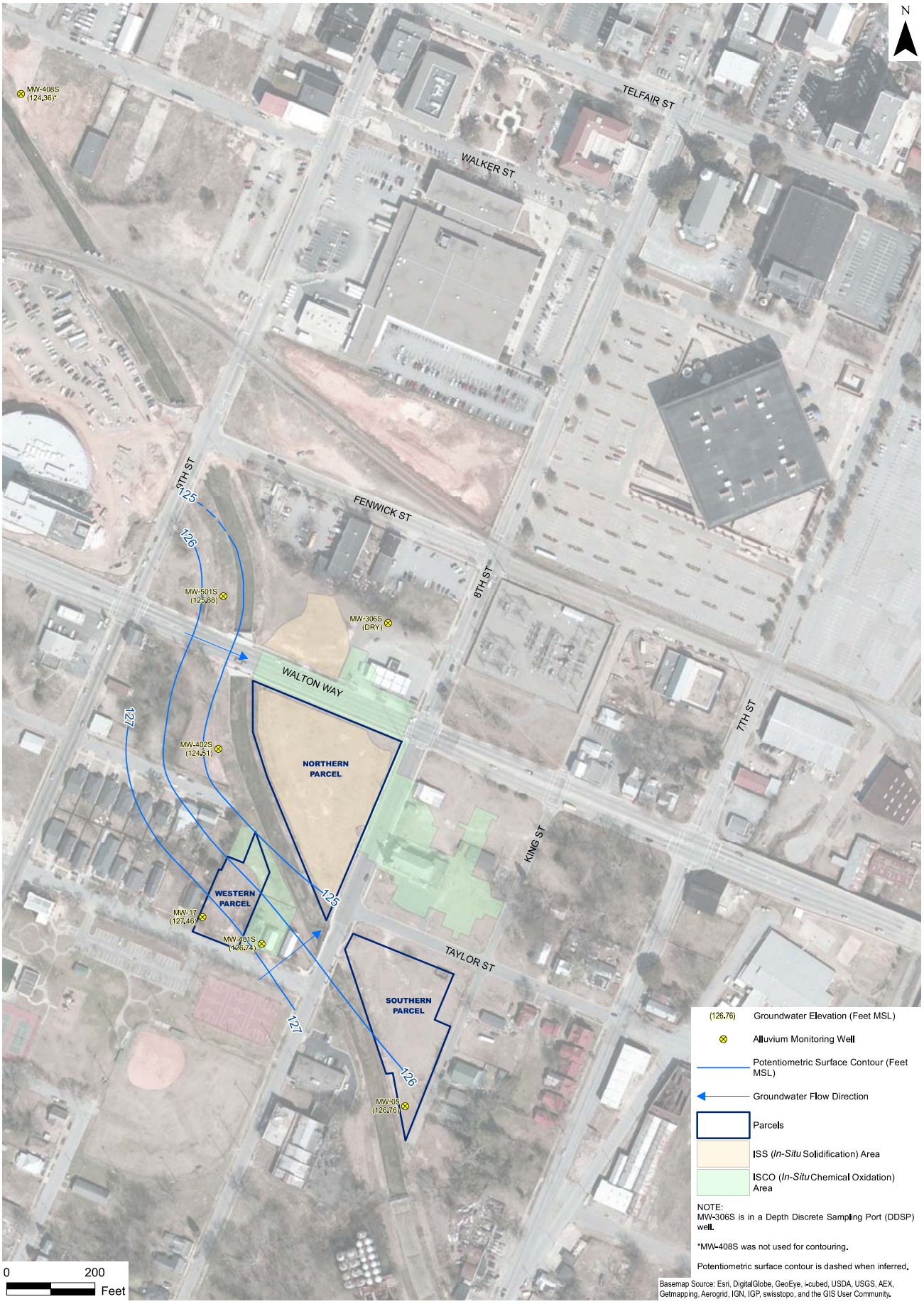
- Soils will be described as stained if there is black to brown, clearly non-natural soil discoloration. Stained soil will not leave a brown stain on latex or nitrile gloves when rinsed with water.

- Soils will be described as having a sheen if a shiny, sometimes iridescent liquid is evident.

- PAHs fluoresce when exposed to UV light. Soils will be described as fluorescent if they fluoresce when exposed to a portable UV light.

- Soils will be described as containing residual BPLM if an immobile NAPL is identified. This residual BPLM would be contained within the pore spaces of the soil; therefore, it would not be considered mobile or free-flowing. This liquid may be identifiable by rubbing the soil between fingers, and it will leave a brown stain on latex or nitrile gloves after rinsing the gloves with water.

- Soils will be described as containing saturated BPLM if a separate NAPL is present that is clearly free-flowing and not bound within the pore space (i.e., dripping from the sample). Saturated BPLM typically feels sticky and will leave a brown stain on latex or nitrile gloves after rinsing the gloves with water.



Environmental Resources Management

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DATE:	3/24/2014	SCALE:	AS SHOWN	REVISION:	0
FILE:	C:\Users\Stephanie.Vizuete\Desktop\GIS_AGL_Augusta\MXD\15thSaCAER\15thSaCAER_F3-1GWElevAlluvium.mxd				

FIGURE 3-1
GROUNDWATER ELEVATION MAP FOR THE ALLUVIUM
JANUARY 6 - 7, 2014

15th Semiannual Corrective Action Effectiveness Report - January 2014 Groundwater Monitoring Event

Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Richmond County, Georgia

ERM

185360Site.DWG 1/23/13 SPV REV 3/26/13

LEGEND:

MW-309D	DEPTH-DISCRETE SAMPLING PORT (DDSP) WELL
MW-12	GALLIARD MONITORING WELL
—124—	POTENTIOMETRIC SURFACE CONTOUR (FEET MSL)
(124.71)	GROUND WATER ELEVATION (FEET MSL)
→	FLOW DIRECTION
	ISS (IN SITU SOLIDIFICATION) AREA
	ISCO (IN SITU CHEMICAL OXIDATION) AREA
NM	NOT MEASURED

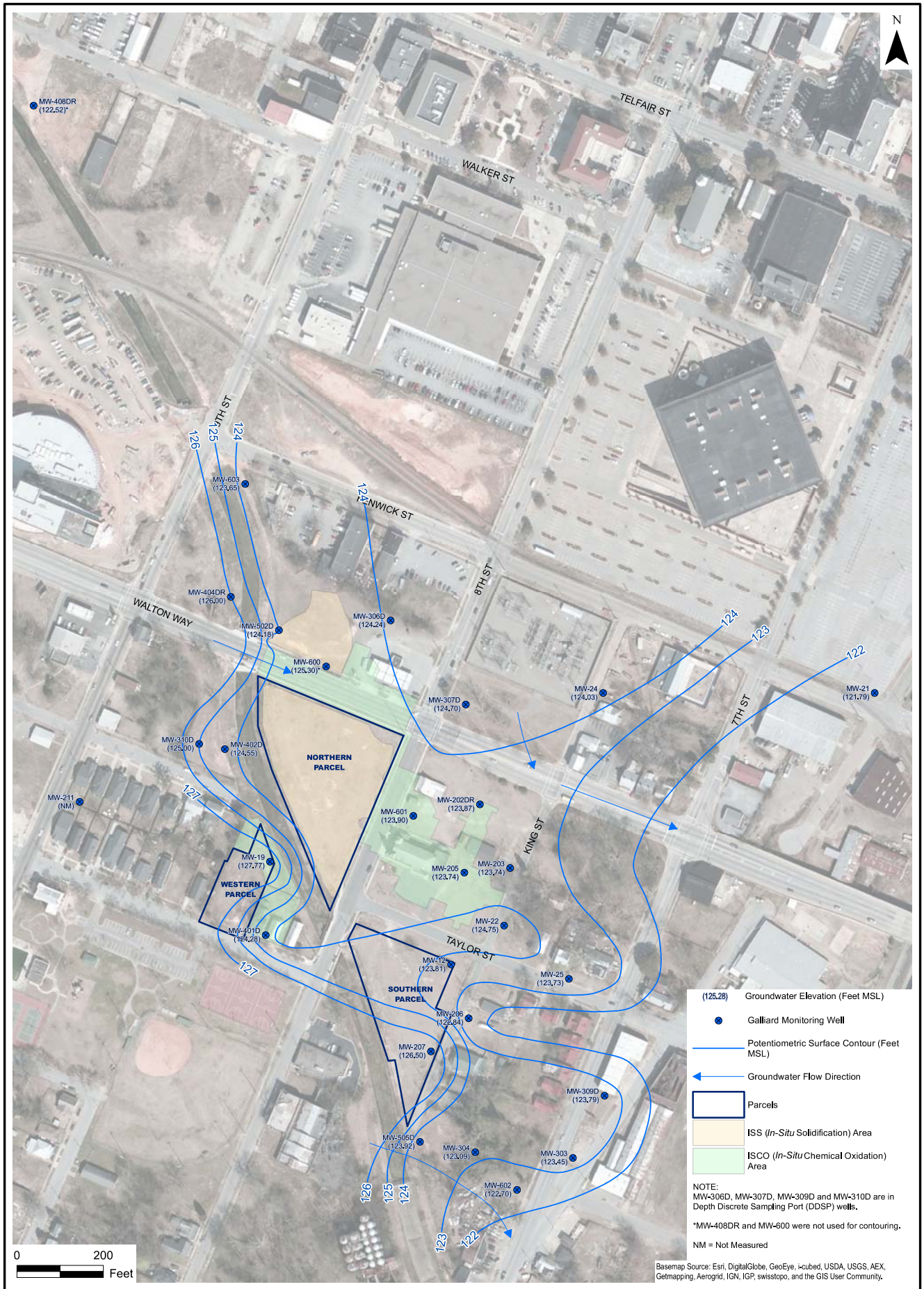
NOTES:

* MW-408DR WAS NOT USED FOR CONTOURING

ERM Environmental Resources Management

GROUND WATER ELEVATION MAP FOR THE GALLIARD - JANUARY 7, 2013
THIRTEENTH SEMIANNUAL CORRECTIVE ACTION EFFECTIVENESS REPORT: JANUARY 2013 GROUND WATER MONITORING EVENT
ATLANTA GAS LIGHT COMPANY FORMER MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

FIGURE 3-2



Environmental Resources Management

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DATE: 3/24/2014	SCALE: AS SHOWN	REVISION: 0

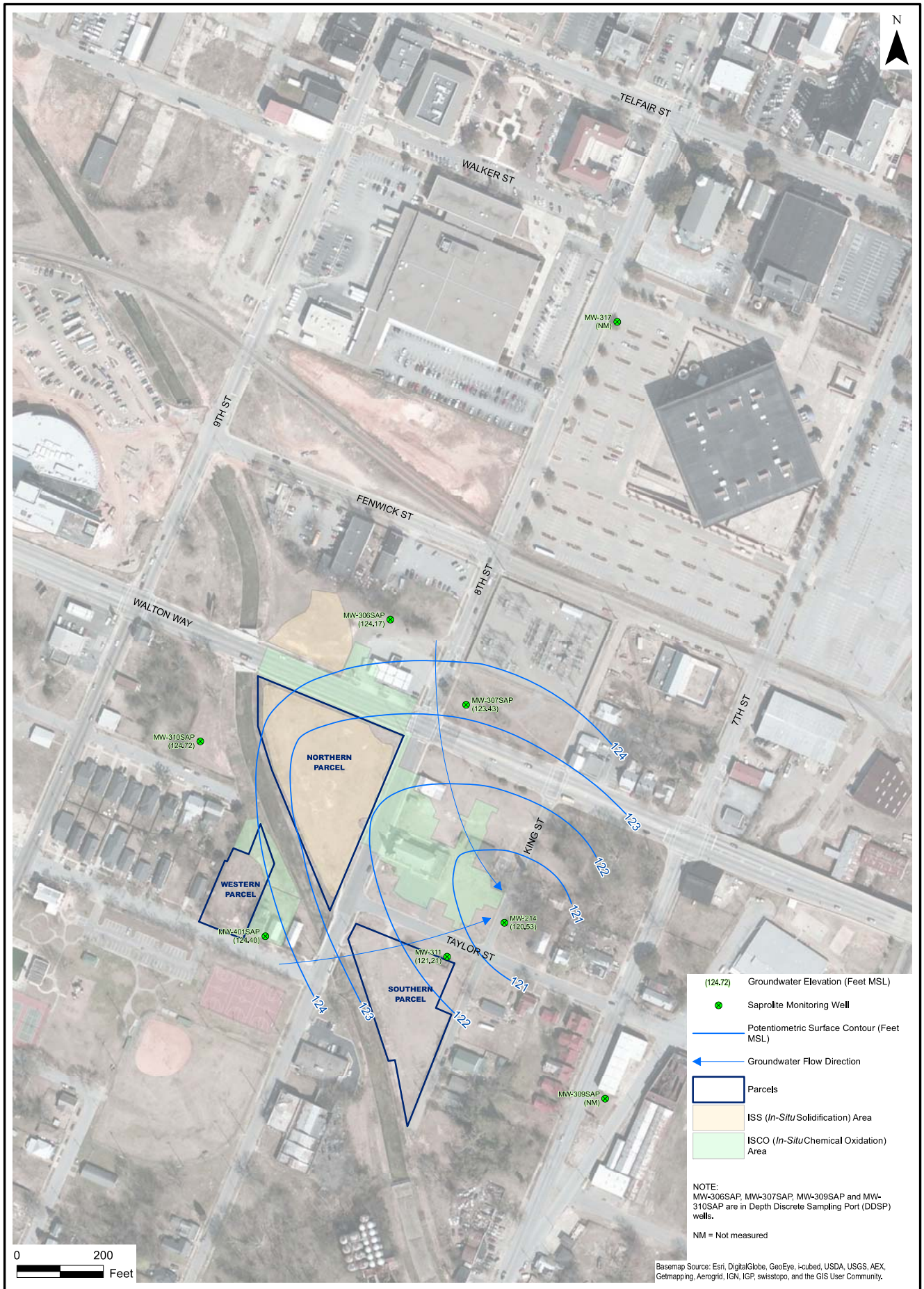
FILE: C:\Users\Stephanie.Vizuete\Desktop\GIS_AGL_Augusta\MXD\15thSaCAER\15thSaCAER_F3-2GWElevGalliard.mxd

FIGURE 3-2a
GROUNDWATER ELEVATION MAP FOR THE GALLIARD
JANUARY 6 - 7, 2014

15th Semiannual Corrective Action Effectiveness Report - January 2014 Groundwater Monitoring Event

Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Richmond County, Georgia

ERM



Environmental Resources Management

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DATE:	3/24/2014	SCALE:	AS SHOWN	REVISION:	0

FILE: C:\Users\Stephanie.Vizuete\Desktop\GIS_AGL_Augusta\MXD\15thSaCAER\15thSaCAER_F3-3GWElevSaprolite.mxd

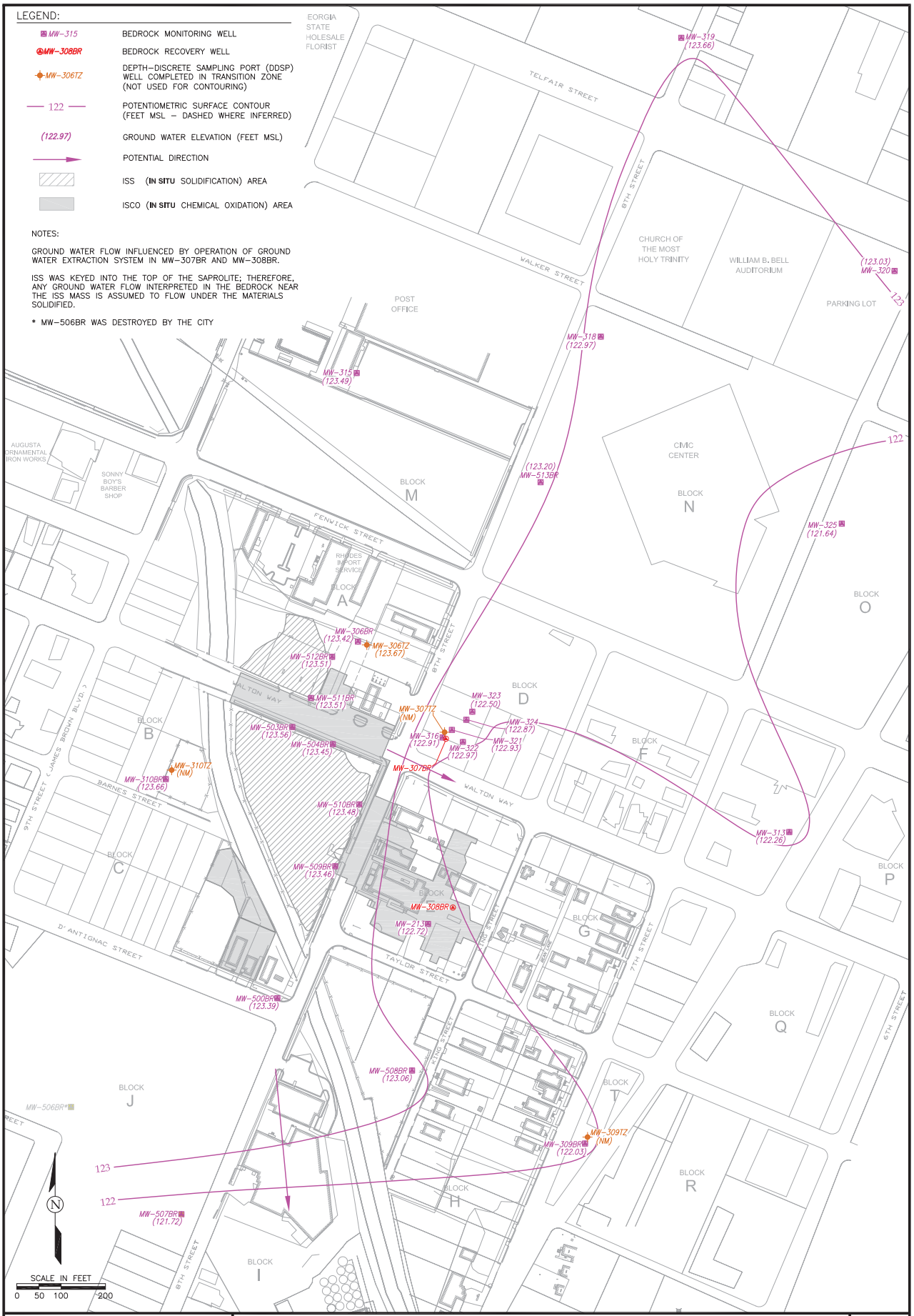
FIGURE 3-3
GROUNDWATER ELEVATION MAP FOR THE SAPROLITE
JANUARY 6 - 7, 2014

15th Semiannual Corrective Action Effectiveness Report - January 2013 Groundwater Monitoring Event

Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Richmond County, Georgia

ERM

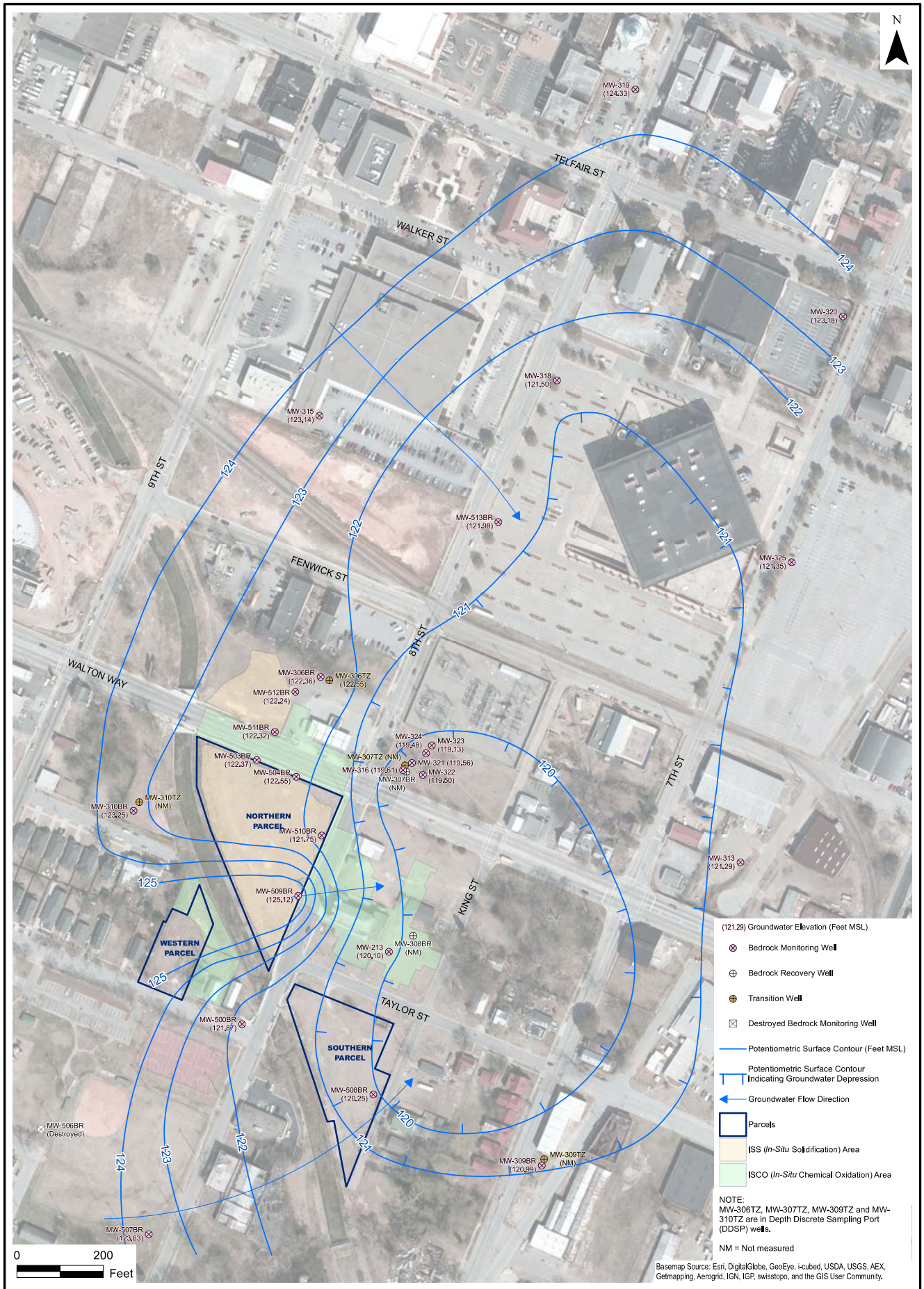
185360Site.DWG 1/23/13 SPV REV 3/26/13



Environmental Resources Management

GROUND WATER POTENTIAL MAP FOR THE BEDROCK & TRANSITION WELLS - JANUARY 7, 2013
THIRTEENTH SEMIANNUAL CORRECTIVE ACTION EFFECTIVENESS REPORT: JANUARY 2013 GROUND WATER MONITORING EVENT
ATLANTA GAS LIGHT COMPANY FORMER MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

FIGURE 3-4



Environmental Resources Management

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DATE: 3/24/2014	SCALE: AS SHOWN	REVISION: 0

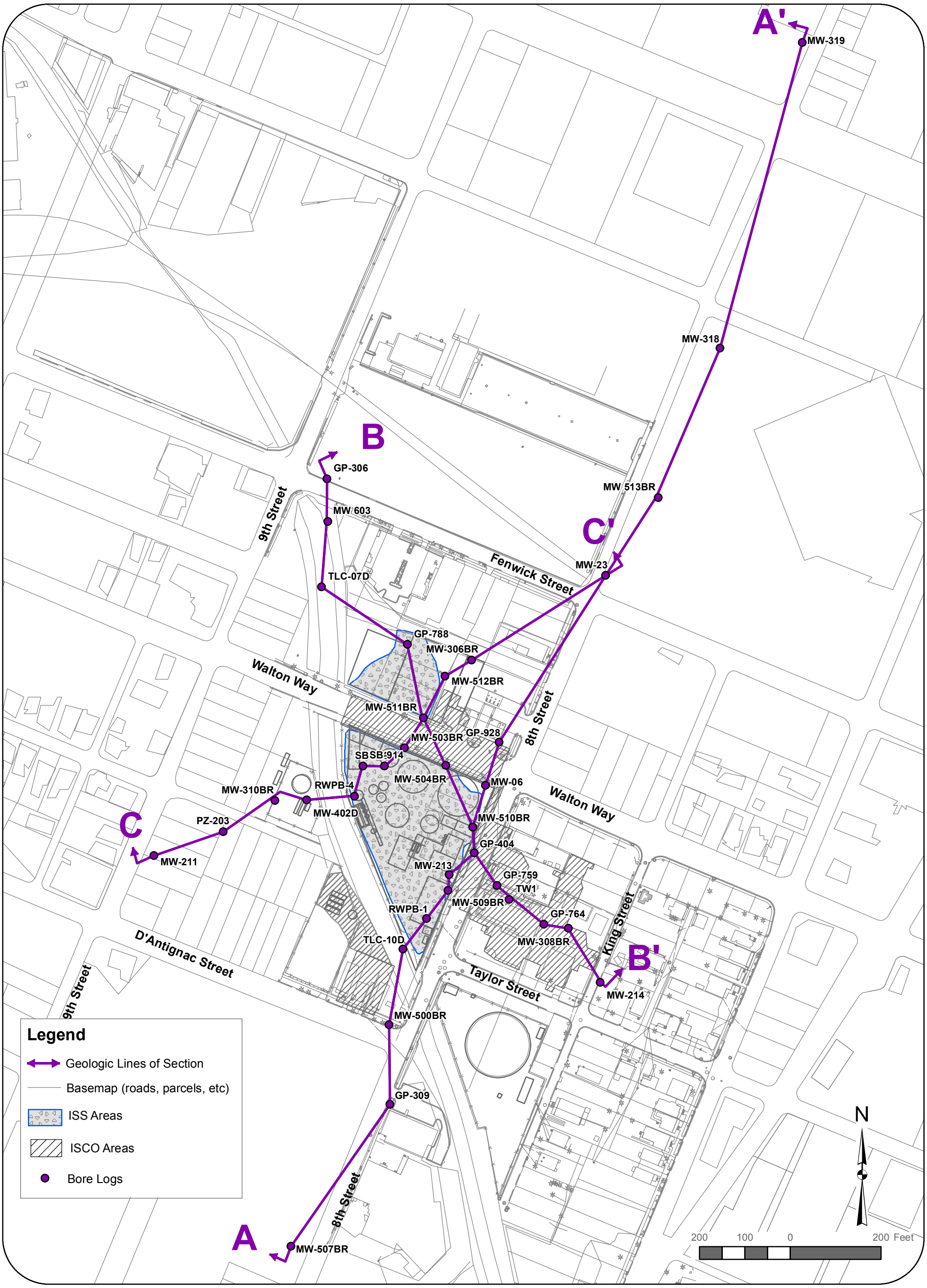
FILE: C:\Users\Stephanie.Vizuete\Desktop\GIS_AGL_Augusta\MXD\15thSaCAER\15thSaCAER_F3-4GWBdrkTZ.mxd

FIGURE 3-4a
GROUNDWATER POTENTIAL MAP FOR THE BEDROCK AND TRANSITION WELLS - JANUARY 6 - 7, 2014

15th Semiannual Corrective Action Effectiveness Report - January 2014 Groundwater Monitoring Event

Atlanta Gas Light Company
Former Manufactured Gas Plant
Augusta, Richmond County, Georgia

ERM



Notes:

The lines of section and boreholes depicted on this transect map apply to the cross section diagrams showing computed lithology (Figs 3-11, 3-12 & 3-13) and conceptual lithology (Figs 3-14, 3-15 & 3-16) in this report.

Atlanta Gas Light Company Former Manufactured Gas Plant Augusta, Georgia	ENVIRONMENTAL COST MANAGEMENT, INC. *Managing Cost and Liability* 3525 Hyland Avenue, Suite 200 Costa Mesa CA 92626 Tel: (714) 662-2759 Fax: (714) 662-2758 www.ecostmanage.com	**Geologic Transect Map** Site Conceptual Model Addendum - 2/2012	Figure **3-10**

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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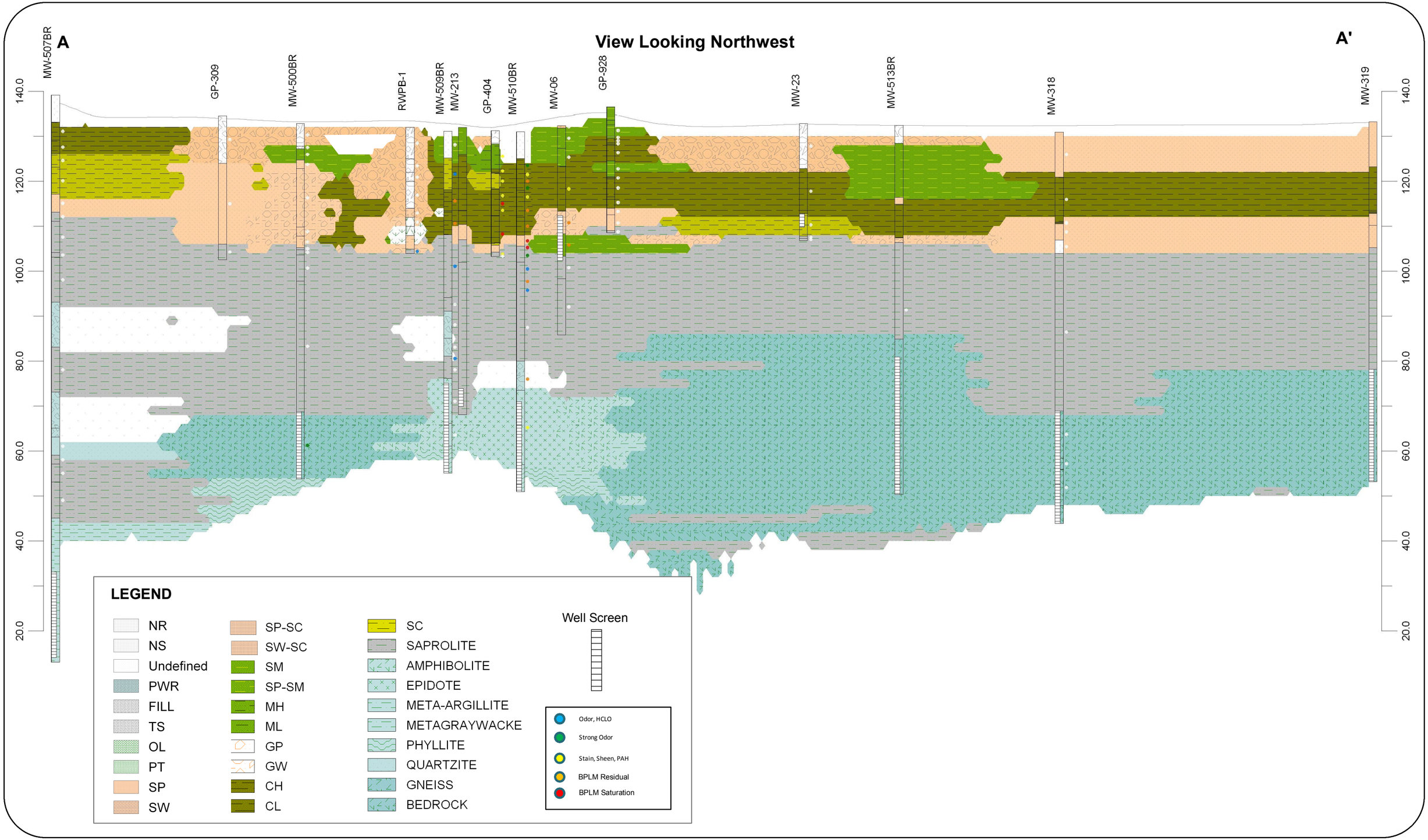

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\FINAL\Fig_3-11.mxd

Notes:
Vertical scale approximately 1"=20'
Horizontal scale approximately 1"=200'
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

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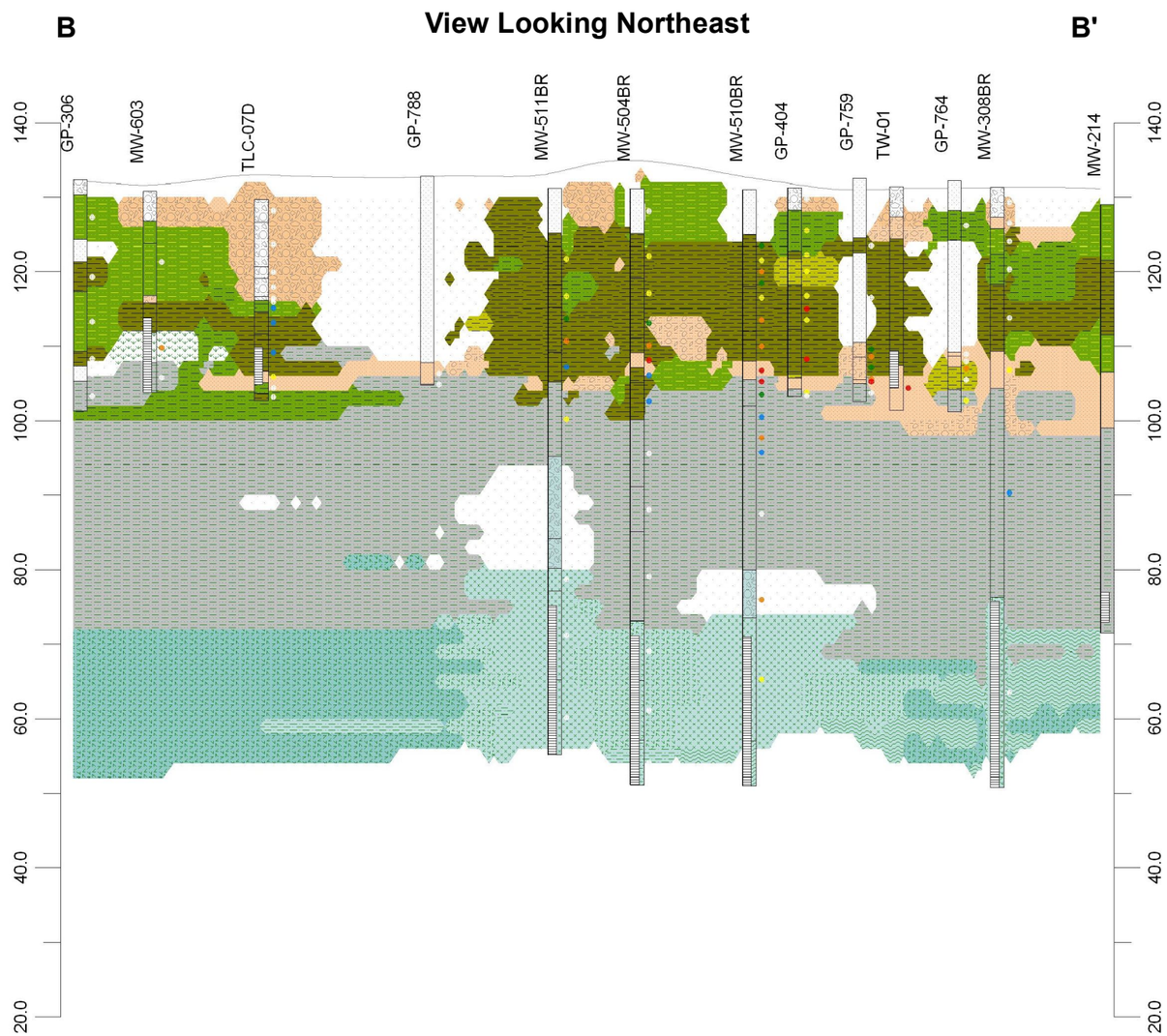
Computed Lithologic Cross Section A-A'

Site Conceptual Model Addendum - 2/2012

Figure
3-11



LEGEND

- NR
- NS
- Undefined
- PWR
- FILL
- TS
- OL
- PT
- SP
- SW
- SP-SC
- SW-SC
- SM
- SP-SM
- MH
- ML
- GP
- GW
- CH
- CL
- SC
- SAPROLITE
- AMPHIBOLITE
- EPIDOTE
- META-ARGILLITE
- METAGRAYWACKE
- PHYLLITE
- QUARTZITE
- GNEISS
- BEDROCK

Well Screen

- Odor, HCLO
- Strong Odor
- Stain, Sheen, PAH
- Residual
- Saturation

Notes:

Vertical scale approximately 1"=20'

Horizontal scale approximately 1"=200'

Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

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Computed Lithologic Cross Section B-B'

Site Conceptual Model Addendum - 2/2012

Figure **3-12**

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
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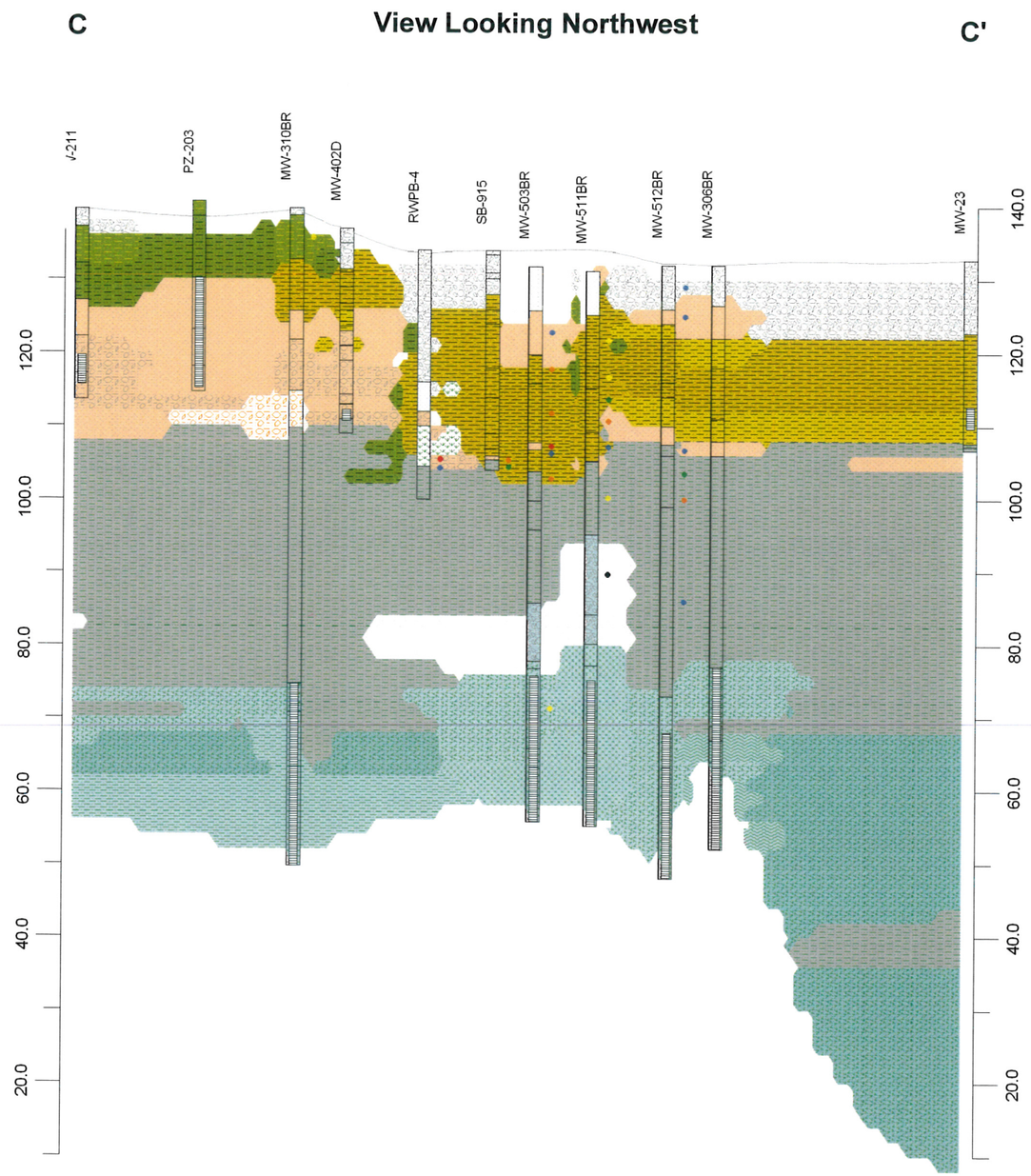

LEGEND

- NR
- NS
- Undefined
- PWR
- FILL
- TS
- OL
- PT
- SP
- SW
- SP-SC
- SW-SC
- SM
- SP-SM
- MH
- ML
- GP
- GW
- CH
- CL
- SC
- SAPROLITE
- AMPHIBOLITE
- EPIDOTE
- META-ARGILLITE
- METAGRAYWACKE
- PHYLLITE
- QUARTZITE
- GNEISS
- BEDROCK
- Well Screen

- Odor, HCLO
- Strong Odor
- Stain, Sheen, PAH
- BPLM Residual
- BPLM Saturation

Notes:
Vertical scale approximately 1"=20'
Horizontal scale approximately 1"=200'
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

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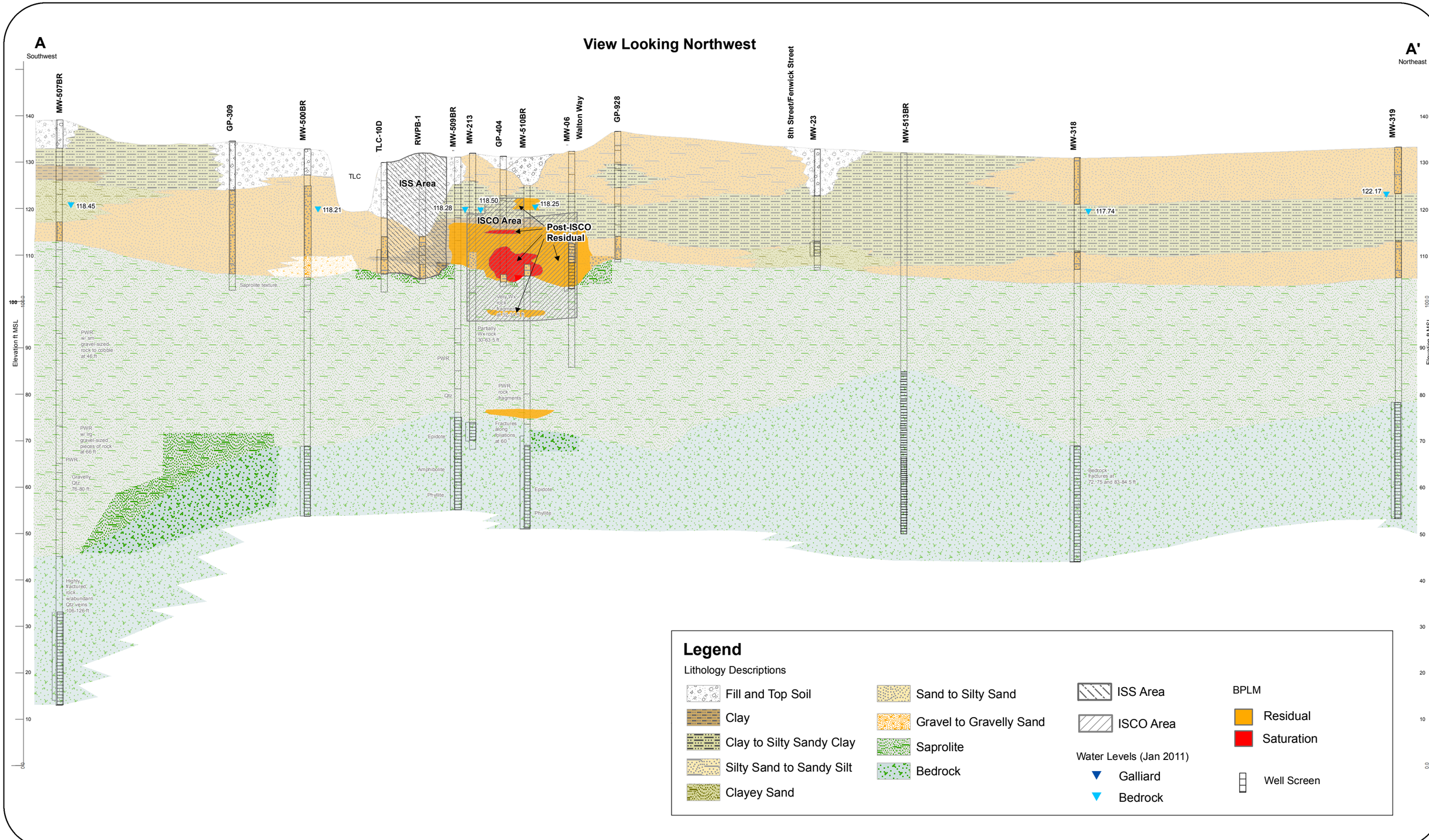
Computed Lithologic Cross Section C-C'

Site Conceptual Model Report - 10/2009

Figure
3-13

Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\FINAL\Fig_3-13.mxd
Drafter: SMK Chkd By: W. Kazi Date Drafted: 09/30/2009 Proj Mgr: H. Ernst Project: AGL Augusta MGP Site



Notes:
Vertical scale approximately 1"=20'. Horizontal scale approximately 1"=200'.
TLC = Third Level Canal
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.
This is a hole-to-hole section. MW-509BR, MW-213 & MW-510BR are outside of ISS columns.

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Conceptual Lithologic Cross Section A-A'

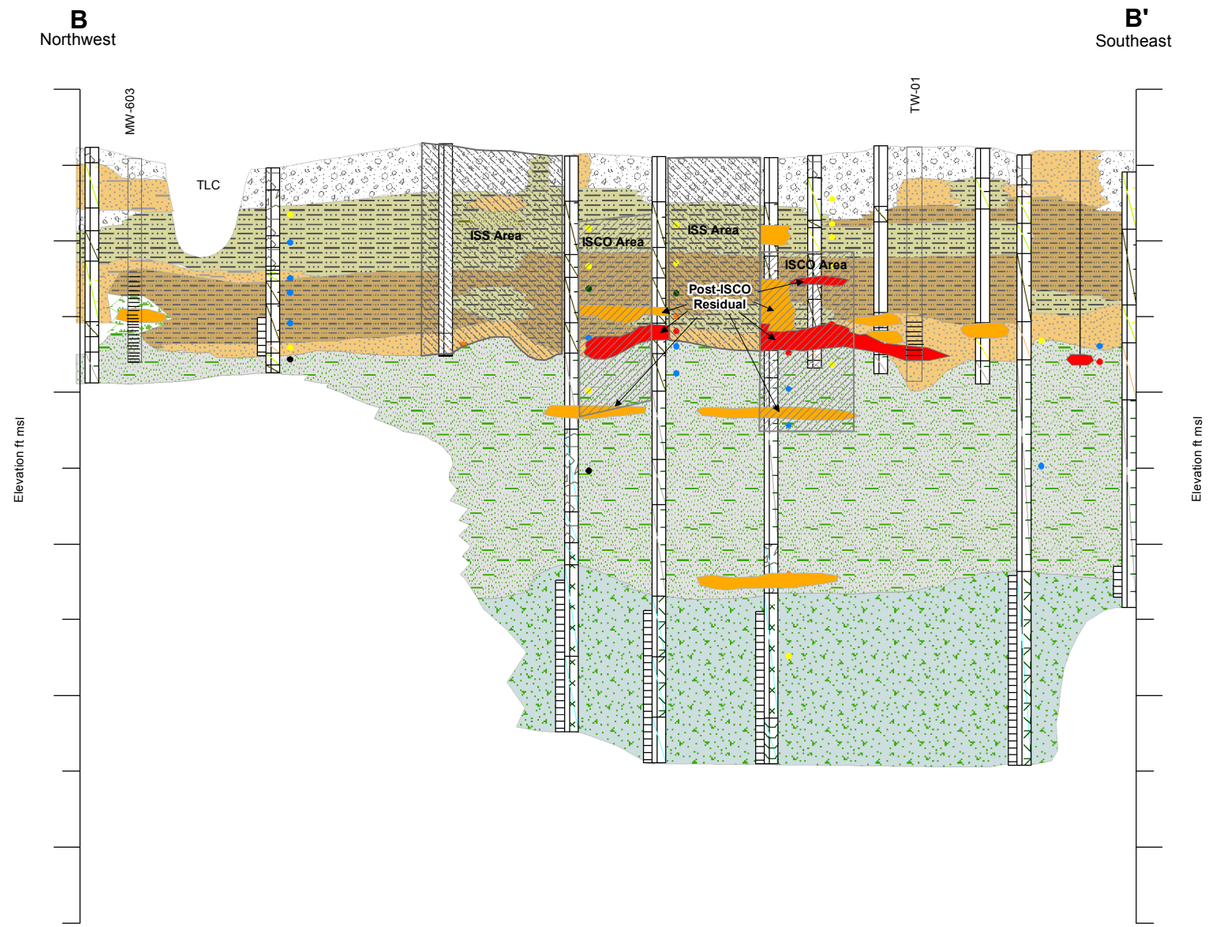
Site Conceptual Model Addendum - 2/2012

Figure
3-14

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-14.MXD

Project: AGL Augusta MGP Site
Proj Mgr: H. Ernst
Date Revised: 1/31/2012
Chkd By: W. Kazi
Drafter: SMK
Path: B:\AGLAUGUSTA\ARCGIS\MXD\SCM\Fig_3-15.MXD

View Looking Northeast



Legend

Lithology Descriptions

- Fill and Top Soil
- Clay
- Clay to Silty Sandy Clay
- Silty Sand to Sandy Silt
- Clayey Sand
- Sand to Silty Sand
- Gravel to Gravelly Sand
- Saprolite
- Bedrock
- ISS Area
- ISCO Area

BPLM

- Residual
- Saturation
- Well Screen

Notes:

Vertical scale approximately 1"=20'. Horizontal scale approximately 1"=200'.

TLC = Third Level Canal

Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.

This is a hole-to-hole section. MW-511BR, MW-504BR & MW-510BR are outside of ISS columns.

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Conceptual Lithologic Cross Section B-B'

Site Conceptual Model Addendum - 2/2012

Figure

3-15

Project: AGL Augusta MGP Site

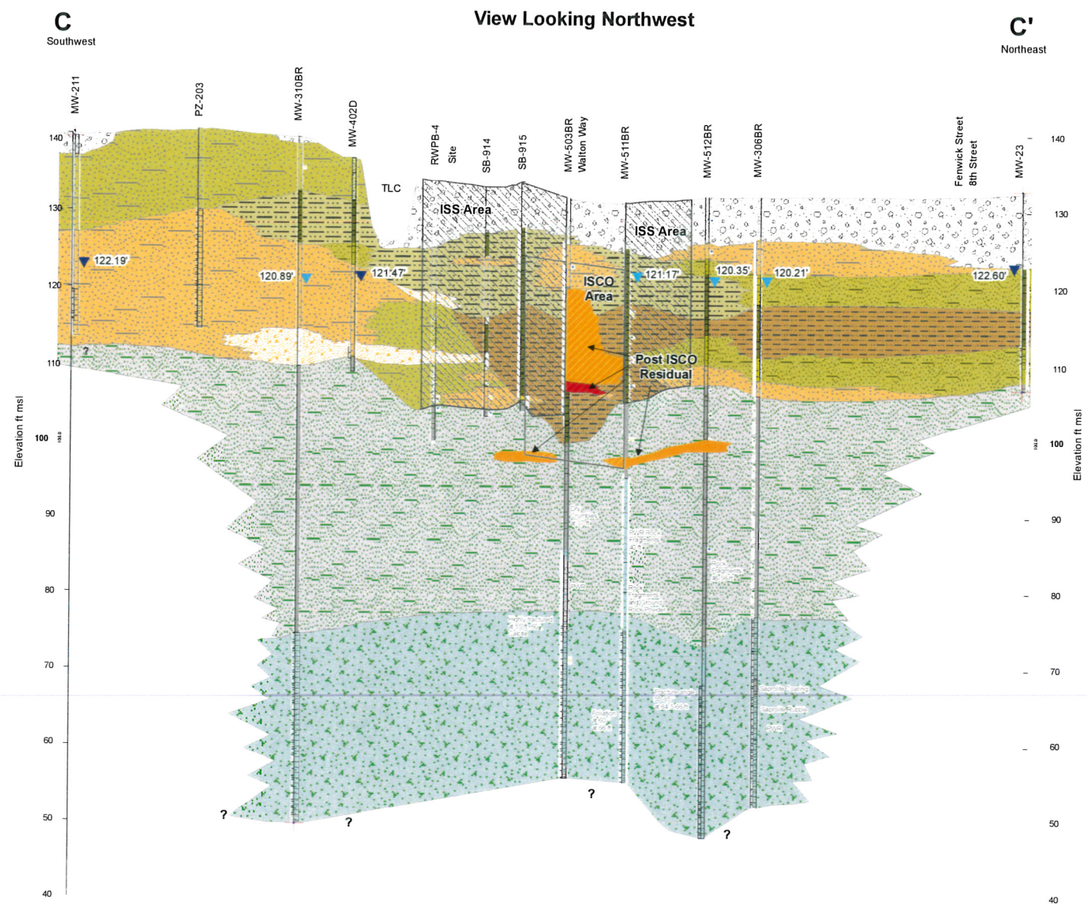
Proj Mgr: H. Ernst

Date Drafted: 09/30/2009

Chkd By: W. Kazi

Drafter: SMK

Path: B:\AGL\AUGUSTA\ARCGIS\MXD\SCM\Fig_3-16.MXD



Legend

Lithology Descriptions

- Fill and Top Soil
- Clay
- Clay to Silty Sandy Clay
- Silty Sand to Sandy Silt
- Clayey Sand
- Sand to Silty Sand
- Gravel to Gravelly Sand
- Saprolite
- Bedrock
- ISS Area
- ISCO Area

Water Levels (Jan 2009)

- Galliard
- Bedrock

BPLM

- Residual
- Saturation

Well Screen

Notes:
Vertical scale approximately 1"=20'. Horizontal scale approximately 1"=200'.
TLC = Third Level Canal
Impacts and BPLM observations depicted as spheres on diagram are actual pre-remediation observations.
This is a hole-to-hole section. MW-503BR, MW-511BR & MW-512BR are outside of ISS columns.

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Conceptual Lithologic Cross Section C-C'

Site Conceptual Model Report - 10/2009

Figure **3-16**

ing first obtained authorization from the Administrator or the Sheriff's Department;

(d) Enter any property belonging to Augusta-Richmond County or under the possession and control of Augusta-Richmond County that is fenced or otherwise designed to exclude intruders or is posted with signs that forbid entry without having first obtained authorization from the Administrator or the Sheriff's Department; or

(e) Enter any motor vehicle of another without permission of the owner; provided, however, that it is a specific defense to a charge under this subsection (3) that the entry was for a brief period of time to secure the vehicle from harm, or was directed or authorized by a public official.

Sec. 3-7-38. Smoking in theaters.

The smoking of cigarettes, cigars, pipes or tobacco in any manner inside indoor motion picture theaters within Augusta-Richmond County, exclusive of the lobbies, approaches or corridors thereto, is prohibited.

Sec. 3-7-39. Smoking and eating on buses operated by transit department.

It shall be unlawful to smoke or eat on the buses operated by the Augusta-Richmond County transit department. Such buses shall be posted with a sign giving notice of the existence of this section.

Sec. 3-7-40. Street signs—Injury or interference with.

The wilful and malicious interference with, injury to or destruction of any street signs within Augusta-Richmond County shall be punished as provided herein.

Sec. 3-7-41. Vagrants, etc.—Generally.

Any able-bodied person who has no visible means of supporting himself and is not engaged in the pursuit of some business or occupation calculated to maintain and support himself, and who shall remain within Augusta-Richmond County after being warned to depart therefrom by the Mayor or Sheriff's Department, shall be punished as provided herein.

Sec. 3-7-42. Vagrants—Bringing into city.

Any person who shall knowingly and willingly bring or introduce, or cause to be brought or introduced, into Augusta-Richmond County any pauper, vagrant or any person not having property to support him, and who is unable or unwilling to work or otherwise support himself, with intent to make such pauper or vagrant or person chargeable upon the charity of Augusta-Richmond County, or the citizens thereof, shall be punished as provided herein.

Sec. 3-7-43. Wells-digging, etc. prohibited; exception.

From and after the passage of the ordinance from which this section derived [April 5, 1982], it shall be unlawful to dig, operate or maintain any well which is not in operation before the adoption of this section within the Urban Services District for the purposes of producing water, except those wells which are recommended to be permitted by the commissioner of public works and approved for drilling or operation by the Commission for the exclusive use of providing water for medical or municipal purposes and subject to approval of the Richmond County Health Department.

Sec. 3-7-44. Penalty.

Any person or persons failing to comply with the lawful provisions hereof or doing any act prohibited hereby or failing to do any act mandated hereby shall be guilty of an offense, and upon trial as a misdemeanor and conviction shall be punished by a fine in an amount not to exceed one thousand dollars ($1000.00) and/or imprisonment in Augusta-Richmond County jail for a period of not to exceed sixty (60) days.

Sec. 3-7-45. Dangerous or deadly weapons prohibited in airport facility.

It shall be unlawful for any person within Augusta-Richmond County to carry into or possess any bludgeon, metal knuckles, firearms, box cutters, knife designed for the purpose of offense

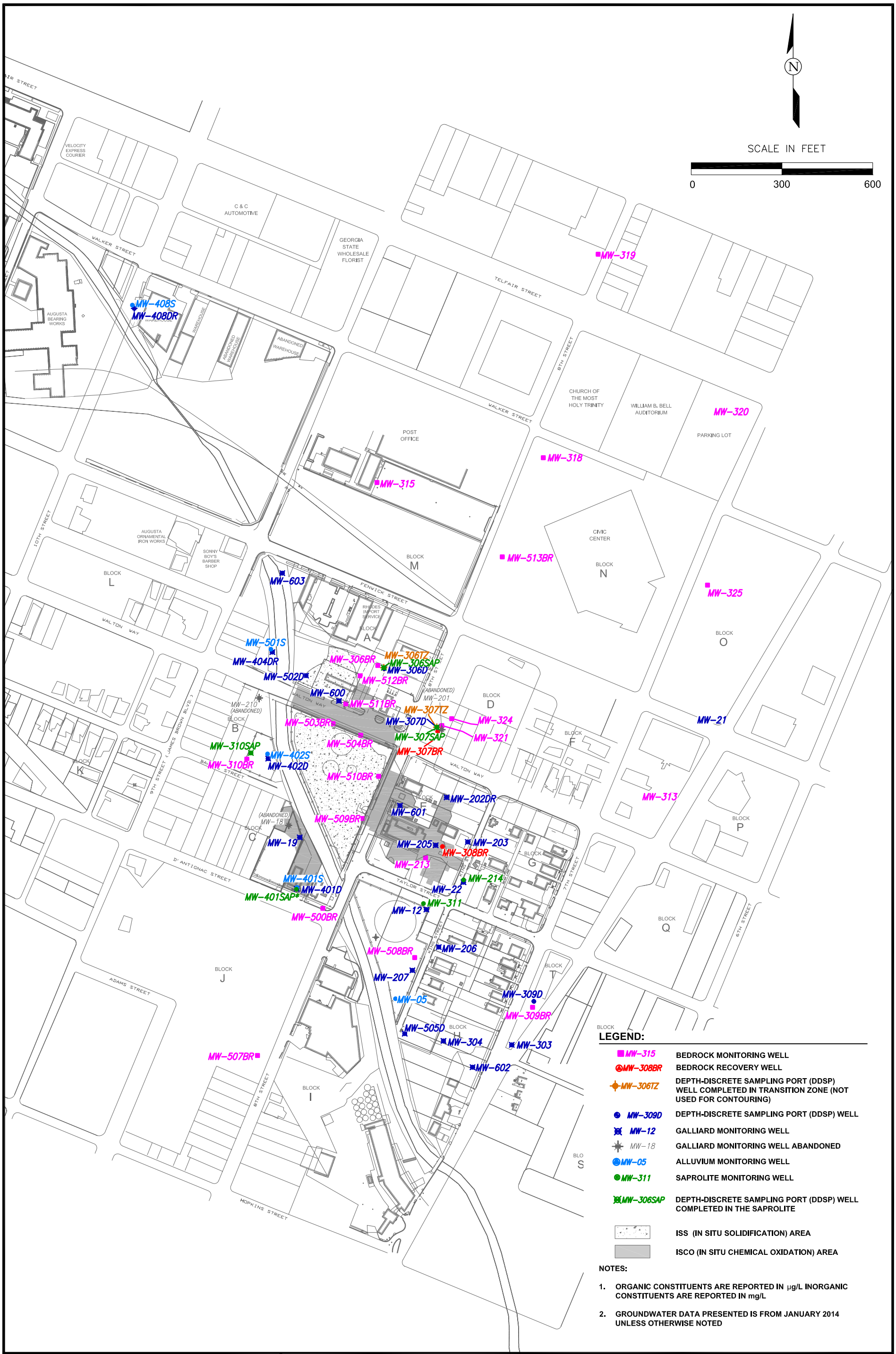
APPENDIX F
PLANNED SEMI-ANNUAL GROUNDWATER MONITORING FOR REMEDY EFFECTIVENESS

VOCS - EPA 8260	SVOCs - EPA 8270C (Low Level)	Inorganics	MNA
Benzene	Acenaphthene	Antimony	Dissolved Oxygen
Ethylbenzene	Acenaphthylene	Arsenic	Dissolved Methane
Toluene	Anthracene	Barium	Dissolved Carbon dioxide
Total Xylenes	Benzo(a)anthracene	Beryllium	Ferrous Iron
Acetone	Benzo(a)pyrene	Cadmium	Sulfate
Carbon Disulfide	Benzo(b)fluoranthene	Chromium	Nitrate
Trichloroethylene	Benzo(g,h,i)perylene	Copper	
Methylene Chloride	Benzo(k)fluoranthene	Cyanide	
	Chrysene	Lead	
	Dibenzo(a,h)anthracene	Mercury	
	Fluoranthene	Nickel	
	Fluorene	Selenium	
	Indeno(1,2,3-cd)pyrene	Thallium	
	Naphthalene	Vanadium	
	Phenanthrene	Zinc	
	Pyrene		

Note: Sampling is typically scheduled for January and July of each year

Well	VOCs	SVOCs	Inorganics	MNA
Galliard Wells				
MW-12	X	X	X	X
MW-19	X	X	X	X
MW-21	X	X	X	
MW-22	X	X	X	X
MW-202DR	X	X	X	X
MW-203	X	X	X	X
MW-205	X	X	X	X
MW-206	X	X	X	X
MW-207	X	X	X	
MW-303	X	X	X	X
MW-304	X	X	X	X
MW-306D	X	X	X	
MW-307D	X	X	X	
MW-401D	X	X	X	X
MW-402D	X	X	X	X
MW-404DR	X	X	X	X
MW-408D	X	X	X	X
MW-502D	X	X	X	X
MW-505D	X	X	X	X
MW-600	X	X	X	
MW-601	X	X	X	
MW-602	X	X	X	
MW-603	X	X	X	
Bedrock Wells				
MW-213	X	X	X	
MW-306TZ	X	X	X	
MW-306BR	X	X	X	
MW-307TZ	X	X	X	
MW-307BR	X	X	X	
MW-308BR	X	X	X	
MW-309BR	X	X	X	X
MW-310BR	X	X	X	
MW-313	X	X	X	X
MW-315	X	X	X	X
MW-318	X	X	X	X
MW-319	X	X	X	X
MW-320	X	X	X	
MW-321	X	X	X	
MW-324	X	X	X	
MW-325	X	X	X	
MW-500BR	X	X	X	
MW-503BR	X	X	X	X
MW-504BR	X	X	X	
MW-507BR	X	X	X	X
MW-508BR	X	X	X	X
MW-509BR	X	X	X	X
MW-510BR	X	X	X	
MW-511BR	X	X	X	
MW-512BR	X	X	X	X
MW-513BR	X	X	X	
Alluvium Wells				
MW-05	X	X	X	
MW-401S	X	X	X	X
MW-402S	X	X	X	
MW-408S	X	X	X	
MW-501S	X	X	X	X
Saprolite Wells				
MW-214	X	X	X	X
MW-306SAP	X	X	X	
MW-307SAP	X	X	X	
MW-310SAP	X	X	X	X
MW-311	X	X	X	X
MW-401SAP	X	X	X	X
QA/QC				
FD(6)	6	6	6	3
MS/MSD(3)	3	3	3	2
Trip Blank (10)	X			

J:\6122140098-AGL-Augusta\2014\DWG\ENV\PLANNED GW MON LOCS-R1.dwg 08/19/2014 3:09pm Tonya.Gladstone



NOTES:

1. ORGANIC CONSTITUENTS ARE REPORTED IN µg/L INORGANIC CONSTITUENTS ARE REPORTED IN mg/L
2. GROUNDWATER DATA PRESENTED IS FROM JANUARY 2014 UNLESS OTHERWISE NOTED

ATLANTA GAS LIGHT COMPANY
VIRP-FORMER
MANUFACTURED GAS PLANT
AUGUSTA, GEORGIA

amec

AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

PLANNED
GROUNDWATER MONITORING LOCATIONS
FOR REMEDY EFFECTIVENESS

JOB NO. **6122-14-0098** FIGURE **F-1**

PREPARED BY/DATE _____ CHECKED BY/DATE _____