

# GROUNDWATER MONITORING PLAN

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## PLANT YATES - R6 CCR LANDFILL - ASH MANAGEMENT AREA COWETA COUNTY, GEORGIA

FOR



Georgia  
Power

August 2026



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## I. CERTIFICATION

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I hereby certify that this Groundwater Monitoring Plan was prepared by, or under the direct supervision of, a Qualified Groundwater Scientist, in accordance with the Georgia Environmental Protection Division (EPD) Rules of Solid Waste Management. According to 391-3-4-.01, a Qualified Groundwater Scientist is “a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.” The design of the groundwater monitoring system was developed in compliance with the Georgia EPD Rules of Solid Waste Management, Chapter 391-3-4.10(6).

Harry M. Jones, P.G.  
Project Manager  
Date: 8/18/2026



Joy E. Headrick, P.E.  
Reviewer  
Date: 8/18/2026



## 1. INTRODUCTION

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Groundwater monitoring is required by the Georgia Environmental Protection Division (EPD) to detect and quantify potential changes in groundwater chemistry. This Groundwater Monitoring Plan (plan) describes the groundwater monitoring program for the site. This plan meets the requirements of EPD rules and uses EPD's Manual for Ground Water Monitoring dated September 1991 as a guide. Groundwater monitoring well locations are presented on Figure A1 of Appendix A and well construction details are presented in Table A1 of Appendix A.

Monitoring will occur in accordance with 391-3-4-.10 of the Georgia Solid Waste Management Rules. If the monitoring requirements specified in this plan conflict with EPD rules (391-3-4), the EPD rules will take precedent.

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Rule (CCR) (§257.90), which is incorporated in the Georgia State CCR Rule by reference, a detection monitoring well network for R6 Ash Monofill-Ash Management Area (R6-AMA) has been installed and certified by a qualified groundwater scientist. This plan focuses on multi-units within R6 CCR Landfill (R6) and the Ash Management Area (AMA). The existing monitoring wells were installed following the guidelines presented herein. Additionally, this plan documents the methods for future monitoring well installation and/or replacement, and procedures for well abandonment. As required by 391-3-4.10(6)(g), a minor modification will be submitted to the EPD prior to the unscheduled installation or abandonment of monitoring wells. Well installation and/or abandonment must be directed by a qualified groundwater scientist. Currently, routine assessment monitoring is completed as required by 391-3-4.10(6)(a), §257.94, and §257.95. An Assessment of Corrective Measures was initiated in June 2019, as required by 391-3-4.10(6)(a) and §257.96.

## 2. GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

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A Hydrogeological Assessment report was prepared in 2018, which has been updated in 2026 (ACC, 2026), and provides a more comprehensive review of both the geological lithology and the hydrogeological conceptual site model. R6-AMA is located within Plant Yates property.

Plant Yates lies within the Inner Piedmont of western Georgia, immediately southeast of the Brevard Fault Zone, an inactive fault which forms the northern boundary of the Inner Piedmont and the Dadeville Complex lithologies. The rocks in the area have been subjected to several episodes of metamorphism and intrusion by igneous bodies, creating a complex geologic picture. Surface expressions of the joints are observed on topographic maps and aerial photos of the Plant Yates area.

Granitic gneiss and schist units have been identified in the Plant Yates area. Both units are covered by a thick layer of saprolite. The schist unit is a sequence of amphibolites interlayered with chlorite schists and other metasedimentary rocks. Amphibolites are well foliated and may be retrograded to chlorite. The granitic gneiss is metamorphosed light-gray granitic pluton of medium- to coarse-grained texture. The unit is exposed in outcrops that trend northeast.

A thin soil layer from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20-40 feet below ground surface, was formed from the weathering of the underlying metamorphic rocks. There is typically a zone of variable thickness (approximately 5-20 feet) of weathered rock between the saprolite and competent bedrock.

Shallow groundwater is typically encountered near the saprolite/weathered rock interface. Bedrock becomes increasingly competent with depth, and movement of groundwater occurs only in fractures (i.e., secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite, or by direct entrance through openings in outcrops. A recent water table elevation contour map showing overall flow directions is provided in Appendix A, Figure A2. Average depth of the water table at Plant Yates varies with topography (range of approximately 5 to 50 feet below ground surface).

At the site, groundwater in the saturated overburden represents the uppermost aquifer. This uppermost aquifer is comprised of both residual soils, saprolite, and partially weather rock, and is generally unconfined. This groundwater is recharged by precipitation stored in residual soils and also recharges the underlying bedrock through preferentially weathered discontinuities in the bedrock. The groundwater typically discharges to streams through both the overburden and inter-connected bedrock fractures. Hydraulic conductivity (K) is defined as the rate at which water can move through a permeable medium. In situ rising head and falling slug tests were performed at multiple locations at R6-AMA to determine horizontal K values. Vertical K values for locations throughout Plant Yates were determined by laboratory testing of undisturbed overburden samples (Shelby Tubes) collected at multiple Plant Yates locations. The range in K values at these locations is small, indicating fairly uniform hydrogeologic layers across the saprolite and weathered rock horizon (typically range from  $10^{-3}$  cm/sec to  $10^{-4}$  cm/sec). Appendix A, Table A1, Monitoring System Details, presents summaries of the K testing values from R6-AMA monitoring wells and piezometers and laboratory test results for locations throughout Plant Yates. The values from the field and laboratory tests fall within the standard range of hydraulic conductivity values associated with a silty sand. Supporting data for the K testing values are provided in Appendix B, Hydraulic Conductivity Testing Results.

Boring logs and well construction diagrams for monitoring well locations within R6-AMA are presented in Appendix C.

The horizontal hydraulic gradient across R6-AMA was measured during the August 2025 groundwater monitoring event from YGWA-39 to YGWC-50, YGWA-40 to YGWC-42, and YGWC-49 to PZ-24IB resulting in an average estimated horizontal gradient of 0.022 ft/ft.

Average groundwater flow velocity in the R6-AMA area is based on horizontal K, lateral gradient (i) and effective porosity ( $P_e$ ). The average horizontal K for the site is 544 feet/year, and the gradient across R6-AMA was 0.022 ft/ft, and the effective porosity ( $P_e$ ) was estimated at 0.20. The average groundwater velocity is calculated as:

Equation

$$v = \frac{K (dh/dl)}{P_e}$$

where:  $v$  = groundwater velocity  
K = hydraulic conductivity  
 $dh/dl$  = hydraulic gradient  
 $P_e$  = effective porosity

Values Used in Calculation

| Value           |         |          | Source                                     |
|-----------------|---------|----------|--------------------------------------------|
| K =             | 5.3E-04 | cm/sec   | See note 1.                                |
|                 | 1.49    | ft/day   |                                            |
| $dh/dl_1$ =     | 0.029   | unitless | Hydraulic gradient from YGWA-39 to YGWC-50 |
| $dh/dl_2$ =     | 0.019   | unitless | YGWA-40 to YGWC-42                         |
| $dh/dl_3$ =     | 0.019   | unitless | YGWC-49 to PZ-24IB                         |
| $dh/dl_{avg}$ = | 0.022   | unitless | Average of $dh/dl_{1,2,3}$                 |
| $P_e$ =         | 0.20    | unitless | See note 2.                                |

Calculated Flow Velocity

$$v = \frac{(1.49) (0.022)}{0.20}$$

$$v = 0.164 \text{ ft/day, or } 60 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Atlantic Coast Consulting, Inc. at R6/AMA (2014-2017)
- (2) Default value recommended by USEPA for silty sand-type soil (USEPA, 1989)
- (3) Groundwater elevations altered by dewatering activities are not used in gradient calculations

### 3. WELL LOCATIONS

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Groundwater monitoring wells are installed to monitor the uppermost occurrence of groundwater beneath the site. Locations are selected based on disposal cell layouts and site geologic and hydrogeologic considerations. Locations were chosen to serve as upgradient (GWA designation) or downgradient (GWC designation) based on groundwater flow direction determined by potentiometric evaluation. The well naming nomenclature is based on Georgia EPD's Industrial Waste Disposal Site Design and Operations Plan – Supplemental Data for Solid Waste Handling Permit (undated).

Monitoring wells will generally be located outside of areas with frequent auto traffic; however, wells may be installed in heavily trafficked areas when necessary, to meet the groundwater monitoring objectives of the EPD rules.

A map depicting monitoring well locations is provided on Figure A1 in Appendix A. A tabulated list of individual monitoring wells and piezometers (included in the potentiometric map) with well construction details such as location coordinates, top-of-casing elevations, well depths, and screened intervals is included in Table A1 of Appendix A. Any change to the groundwater monitoring network must be made by a minor modification to the permit pursuant to 391-3-4.10(6)(g).

A multi-unit groundwater monitoring network has been designed and installed to monitor groundwater at R6-AMA. There are eight additional site-wide upgradient wells located within Plant Yates that are included in the overall upgradient monitoring network system, and include YGWA-1I, YGWA-1D, YGWA-2I, YGWA-3I, YGWA-3D, YGWA-14S, YGWA-30I, and YGWA-47. The comprehensive list of upgradient wells is included in Table A1 of Appendix A.

The monitoring well locations are shown in Appendix A, Figure A1. Boring logs and well construction diagrams for the existing monitoring wells are provided in Appendix C, Boring Logs, Well Construction Diagrams, EPD Bond Continuation Certificates, and Survey Data. Copies of the driller's EPD bond continuation certificates from the period of well installation (2007 – 2024) and June 2020 well re-survey data certified by Georgia Registered Land Surveyor are also included in Appendix C.

## **4. MONITORING WELL DRILLING, CONSTRUCTION, ABANDONMENT & REPORTING**

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The existing monitoring wells were installed following the latest version of the Region 4 USEPA Science and Ecosystem Support Division (SESD) Operating Procedure for Design and Installation of Monitoring Wells (USEPA, SESDGUID-101-R#) as a general guide for best practices. Monitoring well construction data are provided on Table A1 of Appendix A.

### **4.1 DRILLING**

A variety of well drilling methods are available for the purpose of installing groundwater wells. Drilling methodology may include, but not be limited to: hollow stem augers, direct push, air rotary, mud rotary, or roto sonic techniques. The drilling method shall minimize the disturbance of subsurface materials and shall not cause impact to the groundwater. Borings will be advanced using an appropriate drilling technology capable of drilling and installing a well in the site-specific geology. Monitoring wells will be installed using the most current version of the USEPA SESD SESDGUID-101-R# as a general guide for best practices. Drilling equipment shall be decontaminated before use and between borehole locations using the procedures described in the latest version of the Region 4 USEPA Laboratory Services and Applied Science Division (LSASD), Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205-R#) as a guide.

Sampling and/or coring may be used to help determine the stratigraphy and geology. Samples will be logged by trained personnel working under the direction of a Professional Geologist/Engineer registered in the State of Georgia. Screen depths will be chosen based on the depth of the uppermost aquifer.

Well installation will be directed by a qualified groundwater scientist. All drilling for any subsurface hydrologic investigation, installation or abandonment of groundwater monitoring wells must be performed by a driller that has, at the time of installation, a performance bond on file with the Water Well Standards Advisory Council.

### **4.2 DESIGN AND CONSTRUCTION**

Well construction materials will be sufficiently durable to resist chemical and physical degradation and will not interfere with the quality of groundwater samples.

#### **WELL CASINGS AND SCREENS**

American Society for Testing and Materials International (ASTM), National Science Foundation (NSF) rated, Schedule 40, 2-inch diameter polyvinyl chloride (PVC) pipe with flush threaded connections will be used for the well riser and screens. Compounds that can cause PVC to deteriorate (e.g., organic compounds) are not expected at this facility. If conditions warrant, other appropriate materials may be used for construction with prior written approval from the EPD.

## WELL INTAKE DESIGN

The design and construction of the intake of the groundwater wells shall: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the well; and (3) ensure sufficient structural integrity to prevent the collapse of the intake structure.

Each groundwater monitoring well will include a well screen designed to limit the amount of formation material passing into the well when it is purged and sampled. Screens with 0.010-inch slots have proven effective for the earth materials at the site and will be used unless geologic conditions discovered at the time of installation dictate a different size. Screen length shall not exceed 10 feet without justification as to why a longer screen is necessary (e.g., significant variation in groundwater level). If the above prove ineffective for developing a well with sufficient yield or acceptable turbidity, further steps will be taken to assure that the well screen is appropriately sized for the formation material. This may include performing sieve analysis of the formation material and determining well screen slot size based on the grain size distribution.

Pre-packed dual-wall well screens may be used for well construction. Pre-packed well screens combine a centralized inner well screen, a developed filter sand pack, and an outer conductor screen in one integrated unit composed of inert materials. Pre-packed well screens will be installed following general industry standards and using the latest version of the Region 4 USEPA SEDS Operating Procedure for Design and Installation of Monitoring Wells (USEPA, SEDSGUID-101-R#) as a general guide.

## FILTER PACK AND ANNULAR SEAL

The materials used to construct the filter pack will be clean quartz sand of a size that is appropriate for the screened formation. Fabric filters will not be used as filter pack material. Sufficient filter material will be placed in the boring and measurements taken to ensure that no bridging occurs. Upon placement of the filter pack, the well may be pumped to assure settlement of the pack. If pumping is performed, the top of filter pack depth will be measured, and additional sand added if necessary. The filter pack will extend a minimum of two feet above the top of the well screen.

The materials used to seal the annular space above the well pack must prevent hydraulic communication between strata and prevent migration from overlying areas into the well screen interval. A minimum of two feet of bentonite (chips, pellets, or slurry) will be placed immediately above the filter pack. The bentonite seal will extend up to the base of any overlying confining zone or the top of the water-bearing zone to prevent cementitious grout from entering the water-bearing or screened zone. If dry bentonite is used, the bentonite must be hydrated with potable water prior to grouting the remaining annulus.

The annulus above the bentonite seal will be grouted with a cement and bentonite mixture (approximately 94 pounds cement / 3 to 5 pounds bentonite / 6.5 gallons of potable water) placed via tremie pipe from the top of the bentonite seal. During grouting, care will be taken to assure that the bentonite seal is not disturbed by locating the base of the tremie pipe approximately 2 feet above the bentonite seal and injecting grout at low pressure/velocity.

## PROTECTIVE CASING AND WELL COMPLETION

After allowing the grout to settle, the well will be finished by installing a flush-mount or above-ground protective casing as appropriate, and building a surface cap. The use of flush-mount wells will generally be limited to paved surfaces unless site operations warrant otherwise. The surface cap will extend from the top of the cementitious grout to ground surface, where it will become a concrete apron extending outward with a radius of at least 2 feet from the edge of the well casing and sloped to drain water away from the well.

Each well will be fitted with a cap that contains a hole or opening to allow the pressure in the well to equalize with atmospheric pressure. In wells with above-ground protection, the space between the well casing and the protective casing will be filled with coarse sand or pea-gravel to within approximately 6 inches of the top of the well casing. A small weep hole will be drilled at the base of the metal casing for the drainage of moisture from the casing. Above ground protective covers will be locked.

Protective bollards will be installed around each above-grade groundwater monitoring well. Well construction in high traffic areas will generally be limited unless site conditions warrant otherwise.

The groundwater monitoring well details attached in Appendix D1, Groundwater Monitoring Well Detail and Appendix D2, Groundwater Monitoring Well Detail Flush-Mount Surface Completion, illustrates the general design and construction details for a monitoring well.

#### WELL DEVELOPMENT

Well development will be conducted under supervision of a qualified groundwater scientist. After well construction is completed, wells will be developed by alternately purging and surging until relatively clear discharge water with little turbidity is observed. The goal will be to achieve a turbidity of less than 5 nephelometric turbidity units (NTUs); however, formation-specific conditions may not allow this target to be accomplished. Development can be discontinued once a turbidity of less than 10 NTU is achieved. Additionally, the stabilization criteria contained in Appendix E, Groundwater Sampling Procedures, should be met. A variety of techniques may be used to develop site groundwater monitoring wells. The method used must create reversals or surges in flow to eliminate bridging by particles around the well screen. These reversals or surges can be created by using surge blocks, bailers, or pumps. The wells will be developed using a pump capable of inducing the stress necessary to achieve the development goals. All development equipment will be decontaminated prior to first use and between wells using the procedures described in the latest version of the Region 4 USEPA LSASD, Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205-R#) as a guide. Well development data will be included in installation documentation reports.

In low yielding wells, potable water may be added to the well to facilitate surging of the well screen interval and removal of fine-grained sediment. If water is added, the volume will be documented and at minimum, an equal volume purged from the well.

Many geologic formations contain clay and silt particles that are small enough to work their way through the wells' filter packs over time. Therefore, the turbidity of the groundwater from the monitoring wells may gradually increase over time after initial well development. As a result, the monitoring wells may have to be redeveloped periodically to remove the silt and clay that has worked its way into the filter pack of the monitoring wells. Each monitoring well should be redeveloped when sample turbidity values have



significantly increased since initial development or since prior redevelopment. The redevelopment should be performed as described above.

#### **4.3 ABANDONMENT**

Per Georgia Rule 391-3-4-.10(6)(g): Monitoring wells require abandonment and replacement after two consecutive dry sampling events, unless an alternate schedule is approved by the Georgia EPD. Well abandonment will be directed by a qualified groundwater scientist, and in accordance with the Manual for Groundwater Monitoring (1991) and the Annotated (O.C.G.A) § 12-5-120, 1985. These wells will be abandoned under the direction of a Professional Geologist (P.G.) or Professional Engineer (P.E.) registered in Georgia. Neat Portland cement or bentonite will be used in accordance with the references stated above to complete abandonment and seal the well borehole. Any piezometers or groundwater wells located within the footprint of the R6-AMA unit will be over-drilled prior to abandonment. A minor modification shall be submitted in accordance with Rule 391-3-4-.10(3)(b)(6) prior to the installation or decommissioning of monitoring wells.

#### **4.4 DOCUMENTATION**

Within 60 days of the construction, development, and survey or abandonment of each new groundwater monitoring well completed under the direction of a qualified groundwater scientist or engineer, a well installation/abandonment report will be submitted to the EPD. The following information will be documented in the report as applicable to installation or abandonment:

- Well identification,
- Name of drilling contractor and type of drill rig,
- Documentation stating that a Georgia-registered professional surveyor shall certify that the horizontal accuracy for the installed monitoring wells is 0.5 feet, and vertical accuracy for top of casing elevations to 0.01 feet from an acceptable survey point datum,
- Documentation that the driller, at the time the monitoring wells were installed, had a bond on file with the Water Well Standards Advisory Council,
- Type of protective well cap and sump dimensions for each well,
- Dates of drilling and initial well emplacement,
- Drilling method and drilling fluid, if applicable,
- Borehole diameter and well casing diameter,
- Well depth given to within an accuracy of 0.01 feet based upon survey from acceptable survey point,
- Lithologic logs,
- Well casing materials,
- Screen materials and design (i.e., interval in feet below ground surface and elevation),
- Screen length,
- Screen slot size and joint type,
- Filter pack material/size and volume (placement narrative),
- Seal emplacement method and type/volume of sealant,
- Surface seal and volumes/mix of annular seal material,
- Well development date and documentation that water quality field parameters meet well development criteria,
- Sealant materials and volume,

- Well turbidity following development,
- Narrative of well development method - specific well development,
- Documentation of ground surface elevation ( $\pm 0.01$  feet),
- Documentation of top of casing elevation ( $\pm 0.01$  feet), and
- Schematic of the well with dimensions for all components (e.g., casing, screen, sump, well pad)

In accordance with the Georgia Water Well Standards Act [O.C.G.A. § 12-5-134(5)(D)(vii)], at least once every five years, the owner of the property on which a monitoring well is constructed shall have the monitoring well(s) inspected by a professional engineer or professional geologist, who shall direct appropriate remedial corrective work to be performed if the well does not conform to standards. Well inspection records and records of remedial corrective work are subject to review by EPD. Additionally, as part of the closure and post-closure plan, the cost estimate based upon current year cost for the well inspections must be provided for as part of the cost calculations for the groundwater monitoring period.

## **5. GROUNDWATER MONITORING PARAMETERS AND FREQUENCY**

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The following describes groundwater sampling requirements with respect to parameters for analysis, sampling frequency, sample preservation and shipment, and analytical methods. Groundwater samples used to provide compliance monitoring data will not be filtered prior to collection.

Table 1, Groundwater Monitoring Parameters and Frequency, presents the groundwater monitoring parameters and sampling frequency. A minimum of eight independent samples from each groundwater well will be collected and analyzed for 40 CFR 257, Subpart D, Appendix III and Appendix IV test parameters to establish a background statistical dataset. Subsequently, in accordance with 391-3-4-.10(6), the monitoring frequency for the Appendix III parameters will be at least semi-annual during the active life of the facility and post-closure care period. Assessment monitoring was initiated on May 15, 2018 at Former Ash Ponds 3, B, and B', September 2019 for Former Ash Pond A, and November 13, 2019 for R6 Landfill, per Chapter 391-3-4-.10, Georgia Rules for Solid Waste Management.

When referenced throughout this plan, Appendix III and Appendix IV parameters refer to the parameters contained in Appendix III and Appendix IV of 40 CFR 257, Subpart D, 80 Fed. Reg. 21468 (April 17, 2015).

As shown on Table 2, Analytical Methods, the groundwater samples will be analyzed using methods specified in USEPA Manual SW-846, EPA 600/4-79-020, Standard Methods for the Examination of Water and Wastewater (SM18-20), USEPA Methods for the Chemical Analysis of Water and Wastes (MCAWW), ASTM, or other suitable analytical methods approved by the Georgia EPD. The method used will be able to reach a suitable practical quantification limit to detect natural background conditions at the facility. The groundwater samples will be analyzed by licensed and accredited laboratories through the National Environmental Laboratory Accreditation Program (NELAP). Field instruments used to measure pH must be accurate and reproducible to within 0.1 Standard Units (S.U.).

**TABLE 1**  
**GROUNDWATER MONITORING PARAMETERS & FREQUENCY**

| MONITORING PARAMETER                |                        | GROUNDWATER MONITORING |                   |
|-------------------------------------|------------------------|------------------------|-------------------|
|                                     |                        | Background             | Semiannual Events |
| <b>Field Parameters</b>             | Temperature            | X                      | X                 |
|                                     | pH                     | X                      | X                 |
|                                     | Specific Conductance   | X                      | X                 |
|                                     | Turbidity              | X                      | X                 |
|                                     | Dissolved Oxygen       | X                      | X                 |
| <b>Appendix III<br/>(Detection)</b> | Boron                  | X                      | X                 |
|                                     | Calcium                | X                      | X                 |
|                                     | Chloride               | X                      | X                 |
|                                     | Fluoride               | X                      | X                 |
|                                     | pH                     | X                      | X                 |
|                                     | Sulfate                | X                      | X                 |
|                                     | Total Dissolved Solids | X                      | X                 |
| <b>Appendix IV<br/>(Assessment)</b> | Antimony               | X                      | X <sup>1</sup>    |
|                                     | Arsenic                | X                      | X <sup>1</sup>    |
|                                     | Barium                 | X                      | X <sup>1</sup>    |
|                                     | Beryllium              | X                      | X <sup>1</sup>    |
|                                     | Cadmium                | X                      | X <sup>1</sup>    |
|                                     | Chromium               | X                      | X <sup>1</sup>    |
|                                     | Cobalt                 | X                      | X <sup>1</sup>    |
|                                     | Fluoride               | X                      | X <sup>1</sup>    |
|                                     | Lead                   | X                      | X <sup>1</sup>    |
|                                     | Lithium                | X                      | X <sup>1</sup>    |
|                                     | Mercury                | X                      | X <sup>1</sup>    |
|                                     | Molybdenum             | X                      | X <sup>1</sup>    |
|                                     | Selenium               | X                      | X <sup>1</sup>    |
|                                     | Thallium               | X                      | X <sup>1</sup>    |
|                                     | Radium 226 & 228       | X                      | X <sup>1</sup>    |

1. As needed during assessment monitoring.

**TABLE 2  
ANALYTICAL METHODS**

| Parameters                   | EPA Method Number                |
|------------------------------|----------------------------------|
| Boron                        | 6010D/6020B                      |
| Calcium                      | 7140/6010D/6020B                 |
| Chloride                     | 300.0/300.1/9250/9251/9253/9056A |
| Fluoride                     | 300.0/300.1/9214/9056A           |
| Ph                           | 150.1field/90405C                |
| Sulfate                      | 9035/9036/9038/300.0/300.1/9056A |
| Total Dissolved Solids (TDS) | 160/2540C                        |
|                              |                                  |
| Antimony                     | 7040/7041/6010D/6020B            |
| Arsenic                      | 7060A/7061A/6010D/6020B          |
| Barium                       | 7080A/7081/6010D/6020B           |
| Beryllium                    | 7090/7091/6010D/6020B            |
| Cadmium                      | 7130/7131A/6020B                 |
| Chromium                     | 7190/7191/6010D/6020B            |
| Cobalt                       | 7200/7201/6010D/6020B            |
| Fluoride                     | 300.0/300.1/9214/9056A           |
| Lead                         | 7420/7421/6010D/6020B            |
| Lithium                      | 6010D/6020B                      |
| Mercury                      | 7470A/7471B                      |
| Molybdenum                   | 6010D/6020B                      |
| Selenium                     | 7740/7741A/6010D/6020B           |
| Thallium                     | 7840/7841/6010D/6020B            |
| Radium 226 and 228 combined  | 903/9320/9315                    |

## 6. SAMPLE COLLECTION

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During each sampling event, samples will be collected and handled in accordance with the procedures specified in Appendix E, Groundwater Sampling Procedures. Sampling procedures were developed using standard industry practice and USEPA Region 4 Field Branches Quality System and Technical Procedures as a guide. Low-flow sampling methodology will be utilized for sample collection. Alternative industry accepted sampling techniques may be used when appropriate with prior EPD approval.

For groundwater sampling, positive gas displacement PVC, Teflon™ or stainless-steel bladder pumps will be used for purging. If dedicated bladder pumps are not used, portable bladder pumps or peristaltic pumps (with dedicated or disposable tubing) may be used. When non-dedicated equipment is used, it will be decontaminated prior to use and between wells using the procedures described in the latest version of the Region 4 USEPA LSASD, Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205-R#) as a guide. The applied groundwater purging and sampling methodologies will be discussed in the groundwater semi-annual monitoring reports submitted to EPD.

Per Georgia Rule 391-3-4-.10(6)(g), monitoring wells require replacement after two consecutive dry sampling events. Well installation will be directed by a qualified groundwater scientist. A minor modification will be submitted to the EPD in accordance with Rule 391-3-4-.02(3)(b)(6) prior to the installation or decommissioning of monitoring wells.

## 7. CHAIN-OF-CUSTODY

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All samples will be handled under chain-of-custody (COC) procedures beginning in the field. The COC record will contain the following information:

- Sample identification numbers
- Signature of collector
- Date and time of collection
- Sample type
- Sample point identification
- Number of sample containers
- Notated date(s) and time(s) of sample transfer between individuals
- Signature of person(s) involved in the chain of possession

The samples will remain in the custody of assigned personnel, an assigned agent, or the laboratory. If the samples are transferred to other employees for delivery or transport, the sampler or possessor must relinquish possession and the samples must be received by the new owner.

If the samples are being shipped, a hard copy COC will be signed and enclosed within the shipping container.

Samplers must use COC forms provided by the analytical laboratory or use a COC form similarly formatted and containing the information listed above.

## 8. FIELD AND LABORATORY QUALITY ASSURANCE / QUALITY CONTROL

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All field quality control samples will be prepared the same as compliance samples with regard to sample volume, containers, and preservation. The following quality control samples will be collected during each sampling event:

- Field Equipment Rinsate Blanks – Where sampling equipment is not new or dedicated, an equipment rinsate blank will be collected at a rate of one blank per 10 samples using non-dedicated equipment.
- Field Duplicates – Field duplicates will be collected by filling additional containers at the same location, and the field duplicate is assigned a unique sample identification number. One blind field duplicate will be collected for every 20 samples.
- Field Blanks – Field blanks will be collected in the field using the same water source that is used for decontamination. The water will be poured directly into the supplied sample containers in the field and submitted to the laboratory for analysis of target constituents. One field blank will be collected for every 20 samples.

Calibration of field instruments will occur daily and follow the recommended (specific) instrument calibration procedures provided by the manufacturer and/or equipment manual specific to each instrument. Daily calibration will be documented on field forms and these field forms will be included in all groundwater monitoring reports. Instruments will be recalibrated as necessary (e.g., when calibration checks indicate significant variability), and all checks and recalibration steps will also be documented on field calibration forms. Calibration of the instruments will also be checked if any readings during sampling activities are suspect. Replacement probes and meters will be obtained as a corrective action in the event that recalibration does not improve instrument function. Calibration field forms will be provided with the semi-annual groundwater monitoring reports.

Groundwater samples will be analyzed by licensed and accredited laboratories through the NELAP.

## 9. REPORTING RESULTS

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A semi-annual groundwater report that documents the results of sampling and analysis will be submitted to EPD, added to the site Operating Record, and posted to Georgia Power's CCR Website. Semi-annual groundwater monitoring reports will be submitted to the EPD within 90 days of receipt and analysis of the groundwater analytical data from the laboratory. At a minimum, semi-annual reports will include:

1. A narrative describing sampling activities and findings including a summary of the number of samples collected, the dates the samples were collected and whether the samples were required by the detection or assessment monitoring programs.
2. A narrative of purging/sampling methodologies, which will include the type of sampling equipment used.
3. Discussion of results.
4. Recommendations for the future monitoring consistent with the Rules.
5. Potentiometric surface contour map for the aquifer(s) being monitored, signed and sealed by a Georgia-registered P.G. or P.E.
6. Table of as-built information for groundwater monitoring wells including top of casing elevations, ground elevations, screened elevations, current groundwater elevations and depth to water measurements.
7. Groundwater flow rate and direction calculations.
8. Identification of any groundwater wells that were installed or decommissioned during the preceding year, along with a narrative description of why these actions were taken.
9. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels).
10. If applicable, semi-annual assessment monitoring results.
11. Any alternate source demonstration completed during the previous monitoring period, if applicable.
12. Laboratory Reports.
13. COC documentation.
14. Field sampling logs including field instrument calibration, indicator parameters and parameter stabilization data.



15. Field logs and forms will be kept for each sampling event, and will include the following, but not be limited to, well signage, well access, sampling and purging equipment condition, and any site conditions that may affect sampling.
16. Documentation of non-functioning wells.
17. Table of current analytical results for each well, highlighting statistically significant increases and concentrations above maximum contaminant level (MCL).
18. Statistical analyses of Appendix III statistically significant increases (SSI) and Appendix IV statistically significant limits (SSL), including trend analyses of SSLs of Appendix IV constituents if the unit is currently undergoing assessment of corrective measures.
19. Certification by a qualified groundwater scientist.
20. Plume delineation (if applicable).
21. Updated potable water well survey (annually, if applicable).

## 10. STATISTICAL ANALYSIS

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Groundwater quality data from each sampling event will be statistically evaluated to determine if there has been a statistically significant change in groundwater chemistry. Historical background data will be used to determine statistical limits. Sitewide upgradient wells at Plant Yates are included in site background. Statistical analysis techniques will be consistent with the USEPA document Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance (Unified Guidance) (USEPA, 2009).

According to EPD rules (391-3-4-.10(6)(a)), which incorporates the statistical analysis requirements of 40 CFR 257.93 by reference, the site must specify in the operating record the statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each constituent in each well. As authorized by the rule, statistical tests that will be used include:

1. A prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper prediction limit. [§257.93(f)(3)].
2. A control chart approach that gives control limits for each constituent. [§257.93(f)(4)].
3. Another statistical test method (such as prediction limits or control charts) that meets the performance standards of §257.93(g) [§257.93(f)(5)]. A justification for an alternative method will be placed in the operating record and the Director notified of the use of an alternative test. The justification will demonstrate that the alternative method meets the performance standards of §257.93(g).

An inter-well statistical method will be used to compare Appendix III groundwater monitoring data to background conditions. Confidence intervals will be constructed for each downgradient well and used to compare Appendix IV groundwater monitoring data to groundwater protection standards.

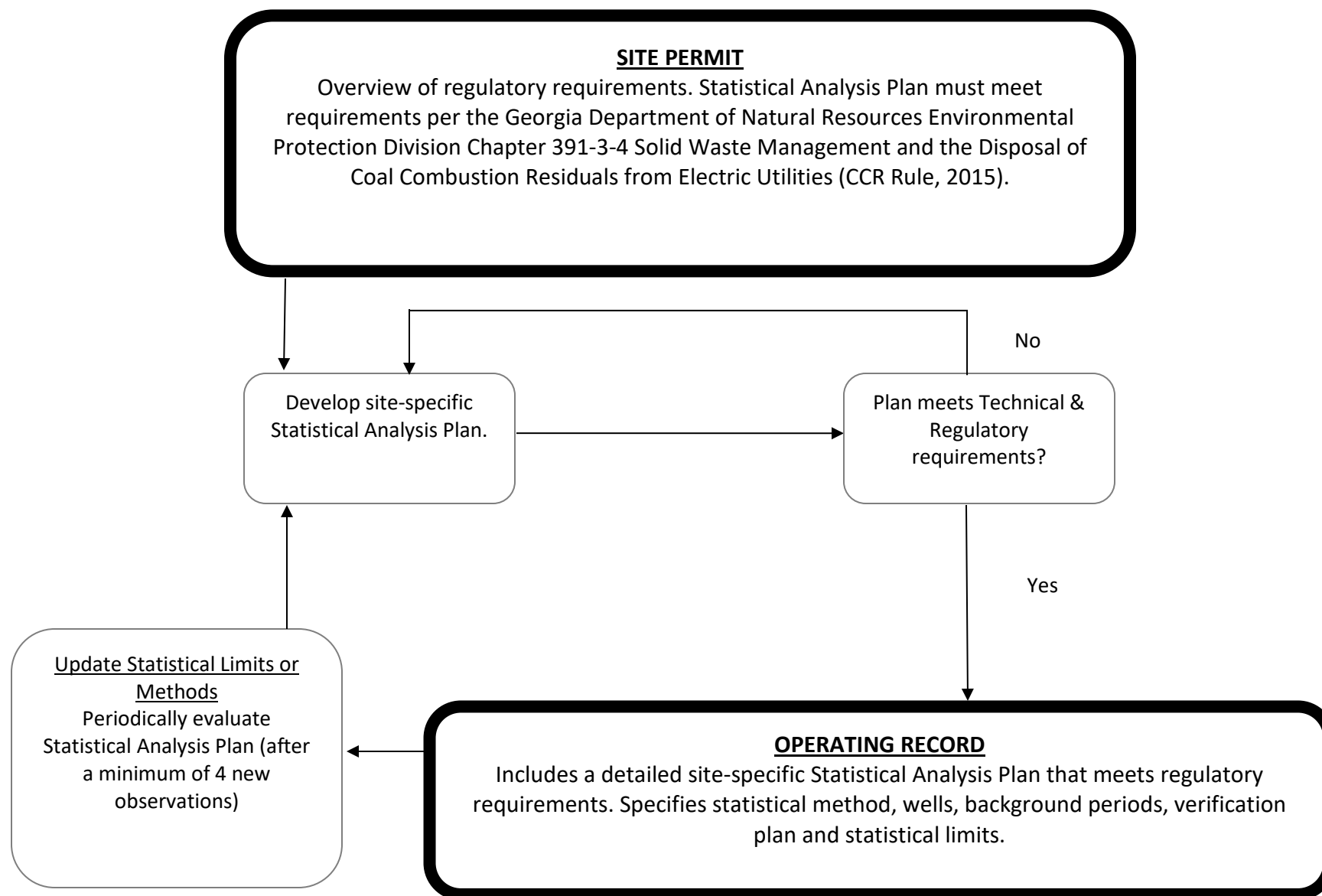
A site-specific statistical analysis plan that provides details regarding the statistical methods to be used will be placed in the site's operating record pursuant to 391-3-4-.10(6). Figure 1, Statistical Analysis Plan Overview, includes a flowchart that depicts the process that will be followed to develop the site-specific plan. Figure 2, Decision Logic for Computing Prediction Limits, presents the logic that will be used to calculate site-specific statistical limits and test compliance results against those limits.

## 11. REFERENCES

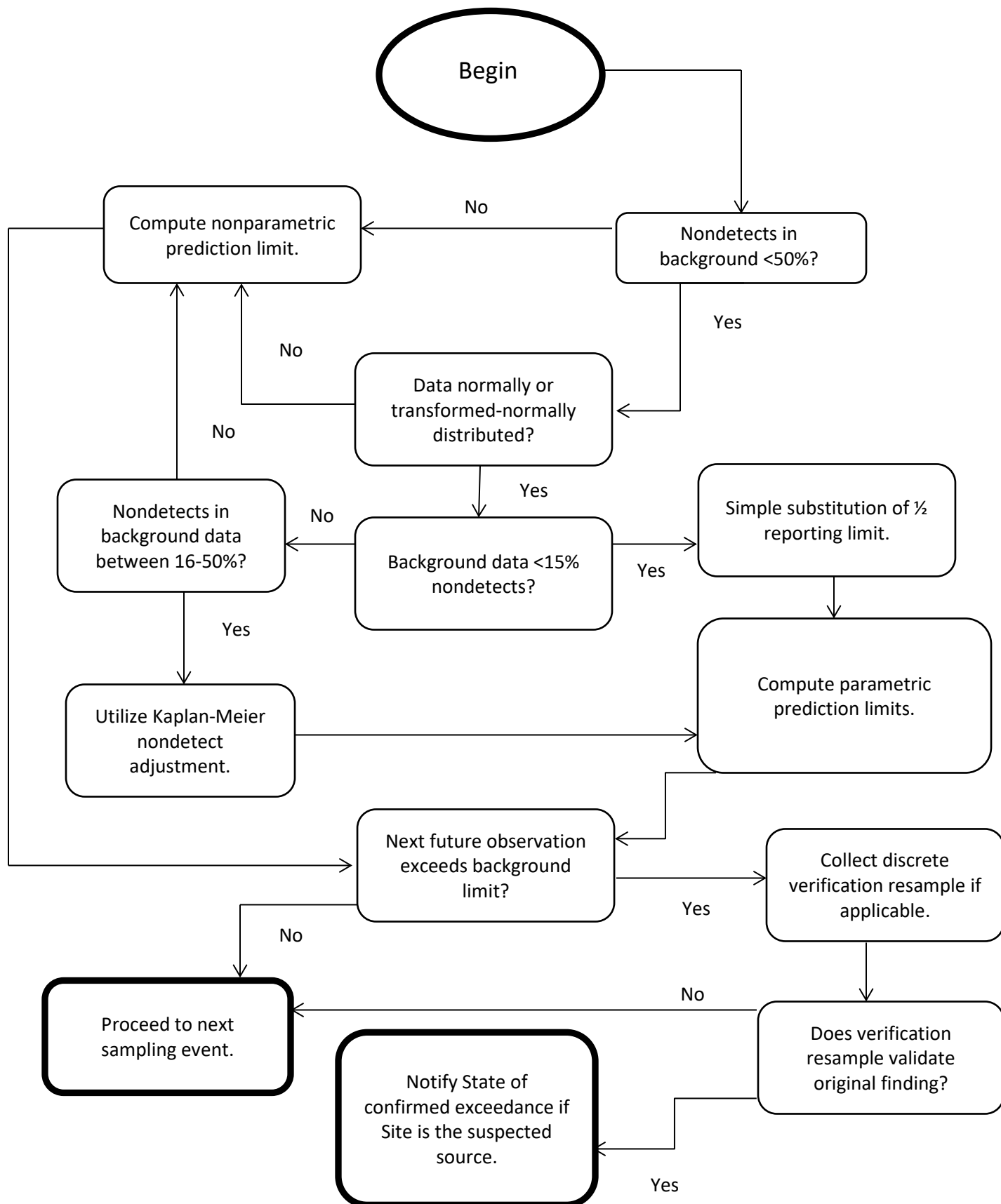
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**FIGURE 1. STATISTICAL ANALYSIS PLAN OVERVIEW**



**FIGURE 2. DECISION LOGIC WITH INTER-WELL PREDICTION LIMITS**



## **APPENDICES**

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### **APPENDIX A. MONITORING SYSTEM DETAILS**

TABLE A1 MONITORING WELL AND PIEZOMETER NETWORK

FIGURE A1 MONITORING WELL NETWORK

FIGURE A2 AUGUST 2025 POTENTIOMETRIC SURFACE CONTOUR MAP

### **APPENDIX B. HYDRAULIC CONDUCTIVITY TESTING RESULTS**

TABLE B1 HORIZONTAL HYDRAULIC CONDUCTIVITY DATA SUMMARY

TABLE B2 SITEWIDE VERTICAL HYDRAULIC CONDUCTIVITY DATA SUMMARY

### **APPENDIX C. BORING LOGS, WELL CONSTRUCTION DIAGRAMS, EPD BOND CONTINUATION CERTIFICATES, AND SURVEY DATA**

### **APPENDIX D1. GROUNDWATER MONITORING WELL DETAIL**

### **APPENDIX D2. GROUNDWATER MONITORING WELL DETAIL FLUSH-MOUNT SURFACE COMPLETION**

### **APPENDIX E. GROUNDWATER SAMPLING PROCEDURES**

**APPENDIX A.     MONITORING SYSTEM DETAILS**

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**Table A1**  
**Groundwater Monitoring Well Construction Details**

| Monitoring Well ID           | Installation Date | Well Designation | Hydraulic Location | Total Well Depth (ft btoc) | Top of Casing (ft) | Screen Interval Elevation (ft) | Depth to Groundwater (ft BTOC) | August 2025 Groundwater Elevation (ft) | Screened Lithology                      | Horizontal Hydraulic Conductivity (cm/sec) | Vertical Hydraulic Conductivity (cm/sec) |
|------------------------------|-------------------|------------------|--------------------|----------------------------|--------------------|--------------------------------|--------------------------------|----------------------------------------|-----------------------------------------|--------------------------------------------|------------------------------------------|
| YGWA-1I                      | 5/20/2014         | Detection        | Upgradient         | 53.60                      | 836.60             | 793.33 - 783.33                | 37.14                          | 799.46                                 | PWR/Transition Zone                     | 1.80E-04                                   | n/a                                      |
| YGWA-1D                      | 5/20/2014         | Detection        | Upgradient         | 128.35                     | 837.25             | 759.34 - 709.34                | 49.38                          | 787.87                                 | Deep Bedrock                            | 6.17E-05                                   | n/a                                      |
| YGWA-2I                      | 5/20/2014         | Detection        | Upgradient         | 63.75                      | 866.25             | 813.00 - 803.00                | 44.80                          | 821.45                                 | PWR/Transition Zone                     | 3.53E-06                                   | n/a                                      |
| YGWA-3I                      | 5/20/2014         | Detection        | Upgradient         | 59.05                      | 796.55             | 748.04 - 738.04                | 52.54                          | 744.01                                 | PWR/Transition Zone                     | 1.16E-04                                   | n/a                                      |
| YGWA-3D                      | 5/20/2014         | Detection        | Upgradient         | 134.18                     | 796.78             | 713.19 - 663.19                | 32.00                          | 764.78                                 | Deep Bedrock                            | 4.90E-04                                   | n/a                                      |
| YGWA-4I                      | 5/21/2014         | Detection        | Upgradient         | 48.81                      | 784.21             | 745.80 - 735.80                | 23.63                          | 760.58                                 | PWR/Transition Zone                     | 8.55E-05                                   | n/a                                      |
| YGWA-5I                      | 5/21/2014         | Detection        | Upgradient         | 58.94                      | 784.54             | 736.01 - 726.01                | 19.75                          | 764.79                                 | PWR/Transition Zone                     | 2.90E-04                                   | n/a                                      |
| YGWA-5D                      | 5/21/2014         | Detection        | Upgradient         | 129.13                     | 784.53             | 705.96 - 655.96                | 20.40                          | 764.13                                 | Deep Bedrock                            | 1.11E-04                                   | n/a                                      |
| YGWA-14S                     | 5/20/2014         | Detection        | Upgradient         | 34.96                      | 748.76             | 723.88 - 713.88                | 15.77                          | 732.99                                 | Saprolite                               | 4.94E-04                                   | n/a                                      |
| YGWA-17S                     | 9/10/2015         | Detection        | Upgradient         | 39.85                      | 783.05             | 753.44 - 743.44                | 14.09                          | 768.96                                 | Saprolite                               | 3.46E-04                                   | 6.91E-04                                 |
| YGWA-18S                     | 9/8/2015          | Detection        | Upgradient         | 39.97                      | 790.57             | 760.99 - 750.99                | 21.53                          | 769.04                                 | Saprolite                               | 1.06E-04                                   | n/a                                      |
| YGWA-18I                     | 9/8/2015          | Detection        | Upgradient         | 79.97                      | 790.57             | 721.20 - 711.20                | 24.87                          | 765.70                                 | PWR/Transition Zone                     | 6.42E-04                                   | n/a                                      |
| YGWA-20S                     | 9/29/2015         | Detection        | Upgradient         | 29.52                      | 767.12             | 747.71 - 737.71                | 12.06                          | 755.06                                 | Saprolite                               | 2.93E-04                                   | 9.72E-05                                 |
| YGWA-21I                     | 9/28/2015         | Detection        | Upgradient         | 79.90                      | 783.70             | 713.92 - 703.92                | 32.62                          | 751.08                                 | PWR/Transition Zone                     | 2.20E-05                                   | n/a                                      |
| YGWA-30I                     | 9/23/2015         | Detection        | Upgradient         | 59.48                      | 762.58             | 713.25 - 703.25                | 40.62                          | 721.96                                 | PWR/Transition Zone                     | 2.27E-03                                   | n/a                                      |
| YGWA-39                      | 7/7/2016          | Detection        | Upgradient         | 68.59                      | 818.19             | 760.08 - 750.08                | 21.15                          | 797.04                                 | Upper Fractured Bedrock                 | 1.85E-03                                   | n/a                                      |
| YGWA-40                      | 7/7/2016          | Detection        | Upgradient         | 48.23                      | 815.73             | 777.95 - 767.95                | 25.82                          | 789.91                                 | Upper Fractured Bedrock                 | 6.50E-04                                   | n/a                                      |
| YGWA-47                      | 7/11/2016         | Detection        | Upgradient         | 59.19                      | 758.22             | 709.63 - 699.63                | 33.73                          | 724.49                                 | Bedrock                                 | 8.04E-04                                   | n/a                                      |
| YGWC-23S                     | 9/21/2015         | Detection        | Downgradient       | 38.91                      | 764.91             | 736.04 - 726.04                | 15.30                          | 749.61                                 | Saprolite                               | 2.22E-04                                   | n/a                                      |
| YGWC-24SB                    | 10/13/2022        | Detection        | Downgradient       | 57.79                      | 764.89             | 717.45 - 707.45                | 24.43                          | 740.46                                 | Saprolite                               | n/a                                        | n/a                                      |
| YGWC-36A                     | 9/22/2020         | Detection        | Downgradient       | 51.20                      | 740.88             | 700.01 - 690.01                | 8.01                           | 732.87                                 | Saprolite                               | n/a                                        | n/a                                      |
| YGWC-38                      | 7/23/2016         | Detection        | Downgradient       | 49.89                      | 799.69             | 760.24 - 750.24                | 28.76                          | 770.93                                 | Upper Fractured Bedrock                 | 1.91E-04                                   | n/a                                      |
| YGWC-41                      | 7/8/2016          | Detection        | Downgradient       | 67.12                      | 803.92             | 747.23 - 737.23                | 28.42                          | 775.50                                 | Upper Fractured Bedrock                 | 5.79E-04                                   | n/a                                      |
| YGWC-42                      | 7/8/2016          | Detection        | Downgradient       | 59.76                      | 797.86             | 748.74 - 738.74                | 28.55                          | 769.31                                 | Upper Fractured Bedrock                 | 1.84E-04                                   | n/a                                      |
| YGWC-43                      | 7/9/2016          | Detection        | Downgradient       | 78.46                      | 744.96             | 676.00 - 666.00                | 16.28                          | 728.68                                 | Upper Fractured Bedrock                 | 3.14E-03                                   | n/a                                      |
| YGWC-49                      | 7/13/2016         | Detection        | Downgradient       | 78.53                      | 782.73             | 714.71 - 704.71                | 31.38                          | 751.35                                 | PWR/Transition Zone                     | 7.46E-04                                   | n/a                                      |
| YGWC-50                      | 10/14/2022        | Detection        | Downgradient       | 39.28                      | 729.78             | 702.03 - 692.03                | 5.42                           | 724.36                                 | Saprolite                               | n/a                                        | n/a                                      |
| <b>Non-Network Locations</b> |                   |                  |                    |                            |                    |                                |                                |                                        |                                         |                                            |                                          |
| YGWA-6S                      | 5/19/2014         | Piezometer       | Upgradient         | 39.87                      | 782.47             | 753.16 - 743.16                | 20.51                          | 761.96                                 | Saprolite                               | n/a                                        | n/a                                      |
| YGWA-6I                      | 5/19/2014         | Piezometer       | Upgradient         | 69.03                      | 782.73             | 724.16 - 714.16                | 20.84                          | 761.89                                 | Upper Fractured Bedrock                 | n/a                                        | n/a                                      |
| PZ-04S                       | 5/21/2014         | Piezometer       | Upgradient         | 32.75                      | 784.25             | 761.94 - 751.94                | 25.04                          | 759.21                                 | Saprolite                               | 4.47E-04                                   | n/a                                      |
| PZ-05S                       | 5/21/2014         | Piezometer       | Upgradient         | 41.94                      | 784.64             | 753.11 - 743.11                | 19.72                          | 764.92                                 | Saprolite                               | 4.34E-04                                   | n/a                                      |
| PZ-06D                       | 5/19/2014         | Piezometer       | Upgradient         | 134.02                     | 782.02             | 698.45 - 648.45                | 23.25                          | 758.77                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| PZ-24IB                      | 10/11/2022        | Piezometer       | Downgradient       | 73.42                      | 764.92             | 702.08 - 692.08                | 24.85                          | 740.07                                 | Transition Zone/Upper Fractured Bedrock | n/a                                        | n/a                                      |
| PZ-35                        | 7/20/2016         | Assessment       | Downgradient       | 49.21                      | 743.81             | 705.16 - 695.16                | 9.81                           | 734.00                                 | Saprolite/PWR                           | 2.59E-03                                   | n/a                                      |
| PZ-37                        | 7/6/2016          | Piezometer       | Downgradient       | 49.78                      | 760.78             | 721.60 - 711.60                | 9.32                           | 751.46                                 | Upper Fractured Bedrock                 | 1.88E-03                                   | n/a                                      |
| PZ-37D                       | 4/16/2021         | Assessment       | Downgradient       | 202.30                     | 761.12             | 568.87 - 558.87                | 2.39                           | 758.73                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| PZ-48                        | 7/12/2016         | Piezometer       | Downgradient       | 58.73                      | 779.83             | 731.49 - 721.49                | 21.42                          | 758.41                                 | Upper Fractured Bedrock                 | 6.06E-04                                   | n/a                                      |
| PZ-51                        | 11/8/2019         | Piezometer       | Downgradient       | 36.32                      | 744.30             | 717.91 - 707.91                | 6.68                           | 737.62                                 | Upper Fractured Bedrock                 | n/a                                        | n/a                                      |
| PZ-52D                       | 9/28/2021         | Assessment       | Downgradient       | 94.89                      | 762.79             | 678.04 - 668.04                | 5.34                           | 757.45                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| PZ-53D                       | 9/28/2021         | Piezometer       | Downgradient       | 162.90                     | 762.80             | 610.04 - 600.04                | 3.97                           | 758.83                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| PZ-54D                       | 1/22/2024         | Assessment       | Downgradient       | 137.36                     | 795.56             | 668.50 - 658.50                | 47.36                          | 748.20                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| PZ-55                        | 12/16/2023        | Assessment       | Downgradient       | 68.02                      | 774.02             | 716.32 - 706.32                | 26.12                          | 747.90                                 | Upper Fractured Bedrock                 | n/a                                        | n/a                                      |
| PZ-56D                       | 1/22/2024         | Piezometer       | Downgradient       | 198.36                     | 795.56             | 607.50 - 597.50                | 41.93                          | 753.63                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| YAMW-1                       | 9/19/2018         | Assessment       | Downgradient       | 69.93                      | 743.84             | 684.23 - 674.23                | 9.76                           | 734.08                                 | Upper Fractured Bedrock                 | n/a                                        | n/a                                      |
| YAMW-2                       | 11/12/2019        | Assessment       | Downgradient       | 46.78                      | 781.04             | 744.47 - 734.47                | 22.22                          | 758.82                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| YAMW-3                       | 11/6/2019         | Assessment       | Downgradient       | 91.74                      | 796.05             | 714.39 - 704.39                | 35.84                          | 760.21                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| YAMW-4                       | 11/7/2019         | Assessment       | Downgradient       | 96.85                      | 805.59             | 719.04 - 709.04                | 32.17                          | 773.42                                 | Deep Bedrock                            | n/a                                        | n/a                                      |
| YAMW-5                       | 11/13/2019        | Assessment       | Downgradient       | 90.64                      | 788.90             | 708.53 - 698.53                | 14.80                          | 774.10                                 | Deep Bedrock                            | n/a                                        | n/a                                      |

Notes:

ft BTOC = feet below top of casing; cm/sec = centimeters per second

Elevation in U.S. Survey Feet (NAVD88) based on surveys completed in June 2020, May 2021, November 2021, December 2022, and February 2024.

PWR = Partially weathered rock; TBD = to be determined; n/a = not applicable

Note that the total well depth differs from the boring depth on the boring logs, as the total well depth is measured from the top of casing and boring depth is measured from ground surface.









## **APPENDIX B.    HYDRAULIC CONDUCTIVITY TESTING RESULTS**

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**TABLE B1**  
**HORIZONTAL HYDRAULIC CONDUCTIVITY DATA**

| Location                 | Test          | Hydraulic Conductivity (cm/sec) | Hydraulic Conductivity (ft/day) | Hydraulic Conductivity (ft/yr) |
|--------------------------|---------------|---------------------------------|---------------------------------|--------------------------------|
| PZ-4S                    | Slug-In Test  | 7.41E-04                        | 2.10                            | 767                            |
|                          | Slug-Out Test | 1.52E-04                        | 0.43                            | 157                            |
| YGWA-4I                  | Slug-In Test  | 9.17E-05                        | 0.26                            | 95                             |
|                          | Slug-Out Test | 8.11E-05                        | 0.23                            | 84                             |
| PZ-5S                    | Slug-In Test  | N/A                             | N/A                             | N/A                            |
|                          | Slug-Out Test | 4.34E-04                        | 1.23                            | 449                            |
| YGWA-5I                  | Slug-In Test  | N/A                             | N/A                             | N/A                            |
|                          | Slug-Out Test | 3.77E-04                        | 1.07                            | 391                            |
| YGWA-5D                  | Slug-In Test  | 1.16E-04                        | 0.33                            | 121                            |
|                          | Slug-Out Test | 1.06E-04                        | 0.30                            | 110                            |
| YGWA-17S                 | Slug-In Test  | 3.42E-04                        | 0.97                            | 354                            |
|                          | Slug-Out Test | 3.46E-04                        | 0.98                            | 358                            |
| YGWA-18S                 | Slug-In Test  | 9.52E-05                        | 0.27                            | 99                             |
|                          | Slug-Out Test | 8.47E-05                        | 0.24                            | 88                             |
| YGWA-18I                 | Slug-In Test  | 7.76E-04                        | 2.20                            | 804                            |
|                          | Slug-Out Test | 5.12E-04                        | 1.45                            | 530                            |
| YGWC-19S                 | Slug-In Test  | 3.39E-04                        | 0.96                            | 351                            |
|                          | Slug-Out Test | N/A                             | N/A                             | N/A                            |
| YGWA-20S                 | Slug-In Test  | 3.63E-04                        | 1.03                            | 376                            |
|                          | Slug-Out Test | 2.22E-04                        | 0.63                            | 230                            |
| YGWC-22S                 | Slug-In Test  | 3.14E-04                        | 0.89                            | 325                            |
|                          | Slug-Out Test | 2.93E-04                        | 0.83                            | 303                            |
| YGWC-23S                 | Slug-In Test  | 2.15E-04                        | 0.61                            | 223                            |
|                          | Slug-Out Test | 2.40E-04                        | 0.68                            | 248                            |
| YGWC-24S                 | Slug-In Test  | 2.79E-04                        | 0.79                            | 289                            |
|                          | Slug-Out Test | 2.93E-04                        | 0.83                            | 303                            |
| PZ-35                    | Slug-In Test  | 3.12E-03                        | 8.84                            | 3229                           |
|                          | Slug-Out Test | 2.05E-03                        | 5.80                            | 2117                           |
| YGWC-32S                 | Slug-In Test  | 1.45E-03                        | 4.10                            | 1498                           |
|                          | Slug-Out Test | 2.39E-03                        | 6.77                            | 2475                           |
| YGWC-32I                 | Slug-In Test  | 1.88E-03                        | 5.32                            | 1942                           |
|                          | Slug-Out Test | 2.39E-03                        | 6.77                            | 2471                           |
| YGWC-33S                 | Slug-In Test  | 2.37E-03                        | 6.71                            | 2452                           |
|                          | Slug-Out Test | 1.58E-03                        | 4.49                            | 1640                           |
| YGWC-34I                 | Slug-In Test  | 1.99E-03                        | 5.63                            | 2055                           |
|                          | Slug-Out Test | 1.78E-03                        | 5.06                            | 1847                           |
| YGWC-36                  | Slug-In Test  | 2.34E-04                        | 0.66                            | 243                            |
|                          | Slug-Out Test | 2.46E-04                        | 0.70                            | 255                            |
| PZ-37                    | Slug-In Test  | 2.11E-03                        | 5.99                            | 2188                           |
|                          | Slug-Out Test | 1.65E-03                        | 4.69                            | 1711                           |
| YGWC-38 (PZ-38)          | Slug-In Test  | 2.08E-04                        | 0.59                            | 215                            |
|                          | Slug-Out Test | 1.73E-04                        | 0.49                            | 179                            |
| YGWA-39 (PZ-39)          | Slug-In Test  | 1.81E-03                        | 5.13                            | 1874                           |
|                          | Slug-Out Test | 1.89E-03                        | 5.34                            | 1952                           |
| YGWA-40 (PZ-40)          | Slug-In Test  | 5.79E-04                        | 1.64                            | 599                            |
|                          | Slug-Out Test | 7.20E-04                        | 2.04                            | 745                            |
| YGWC-42                  | Slug-In Test  | 2.20E-04                        | 0.62                            | 228                            |
|                          | Slug-Out Test | 1.47E-04                        | 0.42                            | 152                            |
| YGWC-43                  | Slug-In Test  | 3.66E-03                        | 10.38                           | 3793                           |
|                          | Slug-Out Test | 2.61E-03                        | 7.41                            | 2706                           |
| PZ-48                    | Slug-In Test  | 6.54E-04                        | 1.85                            | 677                            |
|                          | Slug-Out Test | 5.58E-04                        | 1.58                            | 577                            |
| YGWC-49                  | Slug-In Test  | 6.92E-04                        | 1.96                            | 716                            |
|                          | Slug-Out Test | 8.00E-04                        | 2.27                            | 828                            |
| Slug Test Geometric Mean |               | 5.26E-04                        | 1.49                            | 544                            |

Notes:

1. Slug Test on locations -1 through -16 completed in 2014, -17 through -30 in 2015, -31 and higher performed by ACC, Inc. personnel 3/2-3/9, 2017.
2. N/A = Result not available.
3. cm/sec = centimeters per second; ft/day = feet per day; ft/yr = feet per year

**TABLE B2**  
**Sitewide Vertical Hydraulic Conductivity Data Summary**

| Location       | Depth<br>(ft bgs) | Hydraulic Conductivity<br>(cm/sec) |
|----------------|-------------------|------------------------------------|
| YGWA-17S       | 17 - 19           | 6.91E-04                           |
| YGWC-19S       | 17 - 19           | 1.78E-04                           |
| YGWA-20S       | 17 - 19           | 9.72E-05                           |
| YGWC-22S       | 7 - 9             | 1.63E-03                           |
| YGWC-22S       | 17 - 19           | 4.66E-04                           |
| YGWC-24S       | 17 - 19           | 2.51E-03                           |
| YGWC-24S       | 37 - 39           | 2.50E-05                           |
| PZ-25S         | 33 - 35           | 4.13E-05                           |
| PZ-25S         | 44 - 46           | 2.00E-04                           |
| YGWC-26S       | 17 - 19           | 1.79E-06                           |
| YGWC-26S       | 27 - 29           | 3.36E-05                           |
| YGWC-27S       | 17 - 19           | 4.58E-07                           |
| YGWC-27S       | 27 - 29           | 3.56E-06                           |
| YGWC-28S       | 17 - 19           | 2.08E-07                           |
| PZ-30S         | 27 - 29           | 1.38E-05                           |
| PZ-31S         | 44 - 46           | 7.85E-04                           |
| Geometric Mean |                   | 4.88E-05                           |

Notes:

1. Data from Shelby Tube sample analysis completed by Cardno ATC, 2015.
2. All locations original IDs were originally pre-fixed with "PZ"; pre-fixes of locations incorporated into a groundwater monitoring network were changed to "YGWA" or "YGWC" as appropriate.
3. ft bgs = feet below ground surface
4. cm/sec = centimeters per second

**APPENDIX C. BORING LOGS, WELL CONSTRUCTION DIAGRAMS, EPD  
BOND CONTINUATION CERTIFICATES, AND SURVEY  
DATA**

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# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-11**  
PAGE 1 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/8/2014 COMPLETED 5/20/2014 SURF. ELEV. 834.3 COORDINATES: N:1,256,876.13 E:2,070,097.91

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 51.3 ft. GROUND WATER DEPTH: DURING COMP. 33.18 ft. DELAYED

NOTES Top of Casing Elevation = 836.6

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/23/14 12:27 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                 | WELL DATA                                                                       |
|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                    | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                    | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Silt (ML)</b><br>- reddish brown to rusty red, dry, stiff, low plasticity, very fine (silt/clay) with lower fine to upper fine sand grain, cohesive; trace mica; trace organics                                                                                                                                                                                                                                                 | 831.3                                                                           |
| 5          |             | <b>Silty Sand (SM)</b><br>- reddish brown to red (pink) with zones of light gray mottling, dry, medium dense to loose, no plasticity, lower fine to lower medium grain, noncohesive; trace gravel sized rock fragments; micaceous                                                                                                                                                                                                  | 828.3                                                                           |
| 10         |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- rusty red with greenish gray mottling, damp, medium dense to dense, no plasticity, lower fine to upper fine grain, slightly cohesive; increasing fines (clay/silt); micaceous; quartz, plagioclase; muscovite, biotite, trace chlorite visible                                                                                                                                    | 825.3                                                                           |
| 15         |             | <b>Silty Sand (SM)</b><br>- reddish pink grading to light gray with pinkish to yellowish tan to dark brown mottling, damp, medium dense to loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; trace pea to gravel sized rock fragments; brittle rock fragments                                                                                         |                                                                                 |
| 20         |             | - SM: light gray/tan grading to reddish brown, damp, medium dense to loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , slightly cohesive; zones of increased fines/clay content; completely weathered to residual soil; trace to little mica; quartz, plagioclase, muscovite, biotite visible                                                                                                             |                                                                                 |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                    | 808.3                                                                           |
| 30         |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- light brown/tan with rusty red to light gray to dark brown/black mottling, moist, medium dense, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , slightly cohesive; remnant banding visible; trace mica                                                                                                                                                        |                                                                                 |
| 35         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                    | 799.3                                                                           |
| 40         |             | <b>Interlayered/Alternating Biotite Gneiss and Mica Schist</b><br>- light gray to white (gneiss) with zones of dark gray/black (schist), upper fine to lower coarse grain, medium hard to hard, slightly to not weathered, gneiss banding with zones of schistose foliation, quartz, plagioclase, biotite, muscovite, trace chlorite, pyrite, garnet; low to moderate angled fractures; most fracturing tends to occur in zones of | 794.8                                                                           |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-11**  
PAGE 2 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WELL DATA                                                                       |
|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ELEV. (CONTINUED) ELEV. (DEPTH)                                                 |
| 45         |             | alternating gneiss and schist; no visible healing/fracture fill<br><b>Interlayered/Alternating Biotite Gneiss and Mica Schist(Con't)</b>                                                                                                                                                                                                                                                                                                                                                  | Filter: 20/30 Silica Sand (39.5)<br>Filter: 20/30 Silica Sand 793.3 (41.0)      |
| 50         |             | - Interlayered/Alternating Biotite Gneiss and Mica Schist: light gray to white (gneiss) with zones of dark gray/black (schist), upper fine to lower coarse grain, medium hard to hard, slightly to not weathered, gneiss banding with zones of schistose foliation, quartz, plagioclase, biotite, muscovite, trace chlorite, pyrite, garnet; low to moderate angled fractures; most fracturing tends to occur in zones of alternating gneiss and schist; no visible healing/fracture fill | Well: 2" OD PVC (SCH 40)<br>Screen: 10 ft; pre-pack                             |
|            |             | 783.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 783.3                                                                           |
|            |             | Bottom of borehole at 51.3 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sump: 0.30 ft. 783.0                                                            |





# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-1D**  
PAGE 1 OF 3  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/28/2014 COMPLETED 5/20/2014 SURF. ELEV. 834.9 COORDINATES: N:1,256,867.34 E:2,070,104.61

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 126.5 ft. GROUND WATER DEPTH: DURING COMP. 45.89 ft. DELAYED

NOTES Top of Casing Elevation = 837.25

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/23/14 12:36 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WELL DATA                                                                       |
|------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Silt (ML)</b><br>- reddish brown to rusty red, dry, stiff, low plasticity, very fine (silt/clay) with lower fine to upper fine sand grain, cohesive; trace mica; trace organics                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
|            |             | 831.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             | <b>Silty Sand (SM)</b><br>- reddish brown to red (pink) with zones of light gray mottling, dry, medium dense to loose, no plasticity, lower fine to lower medium grain, noncohesive; trace gravel sized rock fragments; micaceous                                                                                                                                                                                                                                                                                                                              |                                                                                 |
|            |             | 828.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- rusty red with greenish gray mottling, damp, medium dense to dense, no plasticity, lower fine to upper fine grain, slightly cohesive; increasing fines (clay/silt); micaceous; quartz, plagioclase; muscovite, biotite, trace chlorite visible                                                                                                                                                                                                                                                                |                                                                                 |
|            |             | 825.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             | <b>Silty Sand (SM)</b><br>- reddish pink grading to light gray with pinkish to yellowish tan to dark brown mottling, damp, medium dense to loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; trace pea to gravel sized rock fragments; brittle rock fragments                                                                                                                                                                                                                     |                                                                                 |
|            |             | - SM: light gray/tan grading to reddish brown, damp, medium dense to loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , slightly cohesive; zones of increased fines/clay content; completely weathered to residual soil; trace to little mica; quartz, plagioclase, muscovite, biotite visible                                                                                                                                                                                                                                         |                                                                                 |
|            |             | 808.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- light brown/tan with rusty red to light gray to dark brown/black mottling, moist, medium dense, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , slightly cohesive; remnant banding visible; trace mica                                                                                                                                                                                                                                                                                    |                                                                                 |
|            |             | 800.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             | <b>Mica Schist with thinly interlayered/alternating Biotite Gneiss</b><br>- dark gray/black to greenish gray (schist) with thin zones of med gray to light gray (Gneiss), lower fine to upper fine with trace lower medium to upper medium grain, medium hard to soft, slightly to moderately weathered, schistose foliation, trace banding, biotite, chlorite, muscovite, quartz, plagioclase, hornblende, trace garnet, pyrite with some pyrite being porphyroblastic; trace low angle fractures visible; fracturing tends to occur along schistose zones of |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

BORING YGWA-1D  
PAGE 2 OF 3  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/23/14 12:36 - \\ALTRCF02\X2\2DB\SMEL\GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                | WELL DATA                                                                       |                   |
|------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH)  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 | ELEV. (CONTINUED) |
| 45         |             | phylllosilicate minerals; no healing/fracture fill visible<br><b>Mica Schist with thinly interlayered/alternating Biotite Gneiss(Con't)</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                 |                   |
| 50         |             | <b>Biotite Gneiss</b><br>- medium gray to light gray, very fine to lower medium grain, medium hard, not to slightly weathered, banded, quartz, plagioclase, muscovite, biotite, hornblende; low angle fractures visible; total to partial healing visible; some zones of orangish brown staining observed                                                                                                                                                                         |                                                                                 | 788.4             |
| 55         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |                   |
| 60         |             | - Granitic Gneiss: very light gray to white, very fine to upper fine grain, hard to very hard, not weathered, slight/trace banding visible, quartz, plagioclase, muscovite, trace biotite (less mafic minerals than above); low to high angle fracturing observed; unable to distinguish between natural and mechanical fracturing; no visible healing/fracture fill;                                                                                                             |                                                                                 |                   |
| 65         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |                   |
| 70         |             | - Biotite Gneiss: medium gray to light gray, lower fine to upper medium grain, medium hard to hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, pyrite, hornblende (increase in mafic minerals); some zones of thinly interlayered (1-2 mm) greenish gray mica schist; low to moderately angled fractures visible; no visible healing/fracture fill; fracturing tends to occur along planes of thinly interlayered schist;                                    | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            | 768.4<br>(66.5)   |
| 75         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Filter: 20/30 Silica Sand                                                       | 762.7<br>(72.2)   |
| 80         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 | 759.2<br>(75.7)   |
| 85         |             | <b>Mica Schist with thinly interlayered/alternating Biotite Gneiss</b><br>- dark gray to greenish gray, lower medium to upper medium with some upper coarse plagioclase /quartz grain, medium hard to soft, not to slightly weathered, schistose foliation, biotite, muscovite, quartz, plagioclase, pyrite; low angle fractures visible; no visible healing/fracture fill; thin zone of highly fractured (rubble zone) biotite gneiss with orangish brown staining @ approx. 88' | Screen: 50 ft; 0.01" slotted                                                    |                   |

(Continued Next Page)



The well coordinates and elevation data were revised  
based on a June 2020 survey (Arcadis, June 29, 2020).

Note: Top of Casing Elevation = 805.62.

|                                                    |                  |                             |                           |                                      |                          |                       |  |
|----------------------------------------------------|------------------|-----------------------------|---------------------------|--------------------------------------|--------------------------|-----------------------|--|
| <b>DRILLING LOG</b><br><b>GEOLOGICAL SERVICE</b>   |                  |                             |                           |                                      |                          | Hole No. <b>GWA-2</b> |  |
| Sheet 1 of 2                                       |                  |                             |                           |                                      |                          |                       |  |
| SITE <b>Plant Yates</b>                            |                  |                             |                           | HOLE DEPTH <b>49.5</b>               | SURF. ELEV. <b>803.1</b> |                       |  |
| LOCATION <b>Gypsum Stacking Area</b>               |                  |                             |                           | COORDINATES N <b>1,261,383.11</b>    | E <b>2,073,509.98</b>    |                       |  |
| ANGLE <b>0</b>                                     | BEARING <b>0</b> | CONTRACTOR <b>SCS, Inc.</b> |                           | DRILL NO. <b></b>                    |                          |                       |  |
| DRILLING METHOD <b>HAS/SS -31' Rock core-49.5'</b> |                  | NO. SAMPLES <b>6</b>        | NO. U.D. SAMPLES <b>0</b> |                                      |                          |                       |  |
| CASING SIZE <b>6"</b>                              | LENGTH <b></b>   | CORE SIZE <b>2"</b>         | TOTAL % REC. <b></b>      |                                      |                          |                       |  |
| WATER TABLE DEPTH <b>37.6</b>                      |                  | ELEV. <b>767.71</b>         | TIME AFTER COMP. <b>0</b> | DATE TAKEN <b>4/17/2007</b>          |                          |                       |  |
| TYPE GROUT <b>Portland Type I/II</b>               |                  | QUANTITY <b>18 gallons</b>  | MIX <b>6 gal:94 lbs</b>   | DRILLING START DATE <b>4/16/2007</b> |                          |                       |  |
| DRILLER <b>Shawn Milan</b>                         |                  | RECORDER <b>Lea Millet</b>  | APPROVED <b></b>          | DRILLING COMP. DATE <b>4/17/2007</b> |                          |                       |  |

| Graphic Log | Depth | Elev. | Material Description, Classification and Remarks                     | Standard Penetration Test |       |    | Sample No. | Comments |
|-------------|-------|-------|----------------------------------------------------------------------|---------------------------|-------|----|------------|----------|
|             |       |       |                                                                      | From To                   | Blows | N  |            |          |
|             | 0     | 803.1 |                                                                      |                           |       |    |            |          |
|             | 1     | 802.1 |                                                                      |                           |       |    |            |          |
|             | 2     | 801.1 |                                                                      |                           |       |    |            |          |
|             | 3     | 800.1 |                                                                      |                           |       |    |            |          |
|             | 4     | 799.1 |                                                                      |                           |       |    |            |          |
|             | 5     | 798.1 | Orange and tan silty CLAY, dry, black mottling, high mica content    | 4.5-6.0                   | 2/5/6 | 11 |            | 50%      |
|             | 6     | 797.1 |                                                                      |                           |       |    |            |          |
|             | 7     | 796.1 |                                                                      |                           |       |    |            |          |
|             | 8     | 795.1 |                                                                      |                           |       |    |            |          |
|             | 9     | 794.1 |                                                                      |                           |       |    |            |          |
|             | 10    | 793.1 | As above                                                             | 9.5-11.0                  | 4/4/5 | 9  |            | 40%      |
|             | 11    | 792.1 |                                                                      |                           |       |    |            |          |
|             | 12    | 791.1 |                                                                      |                           |       |    |            |          |
|             | 13    | 790.1 |                                                                      |                           |       |    |            |          |
|             | 14    | 789.1 |                                                                      |                           |       |    |            |          |
|             | 15    | 788.1 | As above - last 3" starting into saprolite                           | 14.5-16.0                 | 3/5/7 | 12 |            | 50%      |
|             | 16    | 787.1 |                                                                      |                           |       |    |            |          |
|             | 17    | 786.1 |                                                                      |                           |       |    |            |          |
|             | 18    | 785.1 |                                                                      |                           |       |    |            |          |
|             | 19    | 784.1 |                                                                      |                           |       |    |            |          |
|             | 20    | 783.1 | Orange gneissic saprolite with mica, dry, weathered feldspar pebbles | 19.5-21.0                 | 4/3/8 | 11 |            | 50%      |
|             | 21    | 782.1 |                                                                      |                           |       |    |            |          |
|             | 22    | 781.1 |                                                                      |                           |       |    |            |          |
|             | 23    | 780.1 |                                                                      |                           |       |    |            |          |
|             | 24    | 779.1 |                                                                      |                           |       |    |            |          |

**DRILLING LOG**  
**GEOLOGICAL SERVICE**

Hole No. GWA-2

Sheet 2 of 2

| SITE        |       |       | Plant Yates                                                                 | OTAL DEPTH                | 49.5     | SURF.ELEV. | 805.31     |          |
|-------------|-------|-------|-----------------------------------------------------------------------------|---------------------------|----------|------------|------------|----------|
| Graphic Log | Depth | Elev. | Material Description, Classification and Remarks                            | Standard Penetration Test |          |            | Sample No. | Comments |
|             |       |       |                                                                             | From To                   | Blows    | N          |            |          |
|             | 25    | 778.1 | As above, no pebbles                                                        | 24.5-26.0                 | 4/4/50-3 | R          |            |          |
|             | 26    | 777.1 |                                                                             |                           |          |            |            |          |
|             | 27    | 776.1 |                                                                             |                           |          |            |            |          |
|             | 28    | 775.1 |                                                                             |                           |          |            |            |          |
|             | 29    | 774.1 |                                                                             |                           |          |            |            |          |
|             | 30    | 773.1 | Granular gneissic saprolite                                                 | 29.5-31.0                 | 50-3     | R          |            | 20       |
|             | 31    | 772.1 | 32' - Top of Rock                                                           |                           |          |            |            |          |
|             | 32    | 771.1 | Black & white schist, verging on gneiss - chlorite, biotite, white minerals | 32-40                     |          |            |            |          |
|             | 33    | 770.1 | Fracture with iron staining, chlorite/biotite schist                        | 7.9/8                     |          |            |            |          |
|             | 34    | 769.1 | 33.7-Fracture with iron staining                                            |                           |          |            |            |          |
|             | 35    | 768.1 | Fracture with pyrite                                                        |                           |          |            |            |          |
|             | 36    | 767.1 | Schist verging on gneiss, iron staining, small amount pyrite                |                           |          |            |            |          |
|             | 37    | 766.1 | Chlorite/biotite schist, iron staining, light clay rind                     |                           |          |            |            |          |
|             | 38    | 765.1 | 36.9-Iron staining in fracture                                              |                           |          |            |            |          |
|             | 39    | 764.1 | Fracture with clay rind                                                     |                           |          |            |            |          |
|             | 40    | 763.1 | 37.1-Clay rind with minimal pyrite                                          |                           |          |            |            |          |
|             | 41    | 762.1 | Visible amphibole                                                           |                           |          |            |            |          |
|             | 42    | 761.1 | Pyrite crystal, high chlorite content                                       |                           |          |            |            |          |
|             | 43    | 760.1 | Abundant pyrite                                                             | 40-45                     |          |            |            |          |
|             | 44    | 759.1 | Thin clay rind                                                              | 4.8/5                     |          |            |            |          |
|             | 45    | 758.1 | 42.7-High chlorite content, heavier clay rind                               |                           |          |            |            |          |
|             | 46    | 757.1 | Gneissic with visible biotite books, chlorite, pyrite, thin clay rind       |                           |          |            |            |          |
|             | 47    | 756.1 | Chlorite/biotite schist, pyrite, thin clay rind                             | 45-50                     |          |            |            |          |
|             | 48    | 755.1 | Visible amphibole                                                           | 4/5                       |          |            |            |          |
|             | 49    | 754.1 | Gneissic, visible biotite, pyrite                                           |                           |          |            |            |          |
|             | 50    | 753.1 | Schistic, visible amphibole, clay rind                                      |                           |          |            |            |          |
|             | 51    |       | 48.1-Heavy clay rind                                                        |                           |          |            |            |          |
|             | 52    |       | 49.5- Bottom of Boring                                                      |                           |          |            |            |          |
|             | 53    |       |                                                                             |                           |          |            |            |          |
|             | 54    |       |                                                                             |                           |          |            |            |          |
|             | 55    |       |                                                                             |                           |          |            |            |          |
|             | 56    |       |                                                                             |                           |          |            |            |          |

The well coordinates and elevation data were revised based on a June 2020 survey (Arcadis, June 29, 2020).

SOUTHERN COMPANY SERVICES, INC.

# WELL CONSTRUCTION LOG

|                        |  |                                      |          |
|------------------------|--|--------------------------------------|----------|
| SITE Plant Yates       |  | PROJECT Background well installation | WELL NO. |
| DATE STARTED 4/17/2007 |  | LOCATION Gypsum Stacking Area        | GWA-2    |
| ENDED 4/17/2007        |  | PREPARED L. Millet                   |          |

|                                                                                    | DEPTH | ELEVATION |
|------------------------------------------------------------------------------------|-------|-----------|
| TOP OF CASING                                                                      |       | 805.62    |
| GROUND SURFACE                                                                     | 0     | 803.1     |
| <b>PROTECTIVE CASING</b><br>DIA 4"<br>TYPE Sch 40 PVC                              |       |           |
| BOTTOM OF PROTECTIVE CASING                                                        | 2     | 801.1     |
| <b>BACKFILL MATERIAL</b><br>TYPE Portland Type I/II                                |       |           |
| <b>RISER CASING</b><br>DIA 2"<br>TYPE Sch 40 PVC                                   |       |           |
| TOP OF SEAL                                                                        | 35.3  | 767.8     |
| <b>ANNULAR SEAL</b><br>TYPE Bentonite                                              |       |           |
| TOP OF FILTER PACK                                                                 | 37.3  | 765.8     |
| <b>FILTER PACK</b><br>TYPE: Grade 1A Filter Sand                                   |       |           |
| BOTTOM OF RISER/<br>TOP OF SCREEN                                                  | 39.3  | 763.8     |
| <b>SCREEN</b><br>DIA 2" TYPE Sch 40 PVC<br>OPENING WIDTH 0.01<br>OPENING TYPE Slot |       |           |
| BOTTOM OF SCREEN                                                                   | 49.3  | 753.8     |
| BOTTOM OF CASING                                                                   | 49.3  | 753.8     |
| BOTTOM OF HOLE                                                                     | 49.5  | 753.6     |
| HOLE DIA: 6"                                                                       |       |           |

WATER LEVEL: 37.6



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-21**  
PAGE 1 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/8/2014 COMPLETED 5/20/2014 SURF. ELEV. 864.0 COORDINATES: N:1,256,144.08 E:2,070,790.49

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 61.5 ft. GROUND WATER DEPTH: DURING COMP. 41.44 ft. DELAYED

NOTES Top of Casing Elevation = 866.25

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/23/14 12:18 - \VALTRCF502X2DBSMEL\$GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WELL DATA                                                                       |
|------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Sandy Silt (ML)</b><br>- rusty red, damp, stiff to very stiff, low plasticity, very fine to fine grain, cohesive; trace organics; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 861.5                                                                           |
|            |             | <b>Silty Sand (SM)</b><br>- rusty red to orangish brown, dry, loose, no plasticity, lower fine to upper fine grain, noncohesive; fine gravel sized rock fragments included; micaceous<br>- SM: light brown to tan with some yellowish brown to rusty red mottling, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , completely weathered/residual soil; noncohesive; fine to coarse gravel sized rock fragments included; rock fragments highly weathered and brittle with angular to subangular angularity; micaceous<br>- SM: <i>saprolite</i> , rock fragments increase in size and are less brittle/ more competent with depth; angular rock fragment angularity |                                                                                 |
| 5          |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 862.0<br>(2.0)                                                                  |
| 10         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
| 15         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
| 20         |             | - SM: light gray to light brown, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , continued rock fragment size increase (fine to coarse gravel sized); included rock fragments brittle/highly weathered to harder/ more competent; angular rock fragments; minimal to no mottling visible;                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
| 30         |             | - SM: light gray to tan, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , coarse gravel with some cobble sized rock fragments; included rock fragments harder/more competent but brittle along cleavage planes of included micas (muscovite and biotite); angular rock fragments, micaceous rock fragments are gray to brown in color                                                                                                                                                                                                                                                                                                                                |                                                                                 |
| 35         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 829.0                                                                           |
| 40         |             | <b>Partially Weathered Rock</b><br>- light gray to tan, Pulverized Rock (powder) due to sonic drilling; no describable sample<br>- No Recovery (36' - 40')                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 824.0                                                                           |

Annular Fill: 90/10 Portland Cement/Bentonite Powder

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-21**  
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SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WELL DATA                                                                       |                  |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | (CONTINUED)                                                                     |                  |
| 45         |             | <b>Interlayered Biotite Gneiss and Granitic Gneiss</b><br>- dark gray (Biotite Gneiss) to med gray to light gray (Granitic Gneiss), lower fine to upper fine with zones of lower medium to upper medium grain, medium hard, slightly weathered, slight banding visible, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, garnet visible; very thin 0.5 - 1.0 cm interlayered greenish gray to black schist; visible zones of predominately mafic minerals (Biotite Gneiss) and predominately felsic minerals (Granitic Gneiss); schistose foliation visible in some zones and in areas of mechanical fracture; moderate to high angle fractures visible; total to partial healing with quartz fracture fill                                                   | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            | 818.9<br>(45.1)  |
| 50         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            | 814.3<br>(49.7)  |
| 55         |             | - Interlayered Biotite Gneiss/Granitic Gneiss/ Mica Schist: greenish black to greenish gray (Schist) to dark gray to medium gray (Biotite Gneiss) to light gray (Granitic Gneiss), lower fine to lower medium grain, medium hard, quartz, plagioclase, biotite, muscovite, hornblende pyrite, garnet and chlorite visible; faint banding visible within the interlayered zones of Gneiss and a schistose foliation visible in the zones of Mica Schist; decreasing high and moderate angled fracture increasing low angle fractures with apparent rubble zone @ approx. 54'-55'; minimal to no healing visible; hardness ranges from hard to moderately hard (Gneiss) to moderately soft (Schist); slight weathering in zones of softer schist with fresh Gneiss observed | Filter: 20/30 Silica Sand                                                       | 812.8<br>(51.2)) |
| 60         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Well: 2" OD PVC (SCH 40)                                                        |                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Screen: 10 ft; pre-pack                                                         |                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sump: 0.30 ft.                                                                  | 802.5            |

Bottom of borehole at 61.5 feet.





# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-3I**  
PAGE 1 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 5/7/2014 COMPLETED 5/20/2014 SURF. ELEV. 794.0 COORDINATES: N:1,256,405.20 E:2,072,024.20

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 56.5 ft. GROUND WATER DEPTH: DURING COMP. 46.38 ft. DELAYED

NOTES Top of Casing Elevation = 796.55

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 19:57 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WELL DATA                                                                       |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Lean Clay (CL)</b><br>- rusty red, moist, medium stiff, medium plasticity, very fine grain, cohesive; micaceous; trace organics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 791.5                                                                           |
|            |             | <b>Silt (ML)</b><br>- rusty red, damp, medium dense, low plasticity, very fine to lower fine grain, cohesive; trace clay; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 789.0                                                                           |
|            |             | <b>Silty Sand (SM)</b><br>- reddish brown to pinkish red with orangish brown mottling, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains; micaceous; zone @ approx. 5-5.5' with competent but brittle, gravel to cobble sized angular rock fragments; zone (5-5.5' approx.) is completely weathered but rock fabric is visibly intact<br>- SM: reddish brown to pinkish red with orangish brown to tan to light gray mottling, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains; quartz, plagioclase, muscovite identifiable; interbedded coarse gravel to cobble sized rock fragments; rock fragments brittle friable to moderately hard; angular to subangular grains |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |
|            |             | - SM: reddish brown to light brown grading to tan to grayish brown to light gray (change in color alternated from light to dark depending on whether muscovite or biotite in more abundant), damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of remnant rock fabric visible; trace hard rock fragments included; quartz, plagioclase, muscovite, biotite identifiable; micaceous; angular to subangular grains                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |
|            |             | - SM: light brown to light gray/white with orangish brown and dark brown mottling, damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; quartz, plagioclase, muscovite, biotite identifiable; trace brittle, gravel sized rock fragments included; angular grains; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

BORING YGWA-31  
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ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | WELL DATA                                                                       |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ELEV. (CONTINUED) ELEV. (DEPTH)                                                 |
| 35         |             | <b>Silty Sand (SM)(Cont)</b><br><br>- SM: light brown to light gray/white with orangish brown and dark brown mottling, damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; quartz, plagioclase, muscovite, biotite identifiable; trace brittle, gravel sized rock fragments included; angular grains; micaceous                                                                       | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |
| 40         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |
| 45         |             | <b>Granitic Gneiss</b><br><br>- light gray, very fine to upper fine grain, medium hard, slightly to moderately weathered, slight banding visible, limited recovery, sample primarily broken into gravel sized chips; quartz, plagioclase, biotite, hornblende, porphyroblastic pyrite; overall, sample is too broken up to identify fracturing, but some low angle fractures with partial quartz fracture fill is visible                                                                         |                                                                                 |
| 50         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |
| 55         |             | <b>Amphibolite</b><br>▼ - dark gray to greenish gray to black, lower fine to upper fine grain, hard, not weathered, slight banding visible in some zones with increased biotite, trace zones with a slight schistose foliation, hornblende, biotite, plagioclase, trace quartz, trace pyrite; zone of augen plagioclase with trace quartz; augen zone and fracture fill/pyrite have upper medium to lower coarse grain size; grain size decreases with depth; low to high angle fractures visible | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Filter: 20/30 Silica Sand                                                       |
|            |             | <b>Biotite Gneiss</b><br><br>- medium gray to light gray, lower fine to upper medium grain, hard, not weathered, banded, quartz, plagioclase, biotite, hornblende visible; trace low angle fractures visible; total healing/quartz fracture fill; zone of very coarse grained quartz and plagioclase (Granulite? high grade metamorphic)                                                                                                                                                          | Well: 2" OD PVC (SCH 40)                                                        |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Screen: 10 ft; pre-pack                                                         |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sump: 0.20 ft.                                                                  |
|            |             | Bottom of borehole at 56.5 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 |



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-3D**  
PAGE 1 OF 4  
ECS37976

**SOUTHERN COMPANY SERVICES, INC.**  
**EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING**

**PROJECT** Plant Yates Hydro-Geological Study

**LOCATION** Newnan, GA

**DATE STARTED** 5/6/2014      **COMPLETED** 5/20/2014      **SURF. ELEV.** 794.1      **COORDINATES:** N:1,256,399.94 E:2,072,026.21

|                   |                  |                  |        |               |           |
|-------------------|------------------|------------------|--------|---------------|-----------|
| <b>CONTRACTOR</b> | Cascade Drilling | <b>EQUIPMENT</b> | PS-150 | <b>METHOD</b> | Rotosonic |
|-------------------|------------------|------------------|--------|---------------|-----------|

**DRILLED BY** D. Wilcox      **LOGGED BY** B. Smelser      **CHECKED BY**      **ANGLE**      **BEARING**

|                     |           |                                   |              |           |                |
|---------------------|-----------|-----------------------------------|--------------|-----------|----------------|
| <b>BORING DEPTH</b> | 131.5 ft. | <b>GROUND WATER DEPTH: DURING</b> | <b>COMP.</b> | 28.62 ft. | <b>DELAYED</b> |
|---------------------|-----------|-----------------------------------|--------------|-----------|----------------|

**NOTES** Top of Casing Elevation = 796.78

| DEPTH (ft) |  | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ELEV. | WELL DATA                                                                       |                  |
|------------|--|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------|------------------|
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                 |                  |
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |  |             | <b>Lean Clay (CL)</b><br>- rusty red, moist, medium stiff, medium plasticity, very fine grain, cohesive; micaceous; trace organics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                                                                                 |                  |
|            |  |             | <b>Silt (ML)</b><br>- rusty red, damp, medium dense, low plasticity, very fine to lower fine grain, cohesive; trace clay; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 791.6 | ← Surface Seal: concrete                                                        | 792.1<br>(2.0)   |
| 5          |  |             | <b>Silty Sand (SM)</b><br>- reddish brown to pinkish red with orangish brown mottling, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains; micaceous; zone @ approx. 5-5.5' with competent but brittle, gravel to cobble sized angular rock fragments; zone (5-5.5' approx.) is completely weathered but rock fabric is visibly intact<br>- SM: reddish brown to pinkish red with orangish brown to tan to light gray mottling, dry, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains; quartz, plagioclase, muscovite identifiable; interbedded coarse gravel to cobble sized rock fragments; rock fragments brittle friable to moderately hard; angular to subangular rock fragments | 789.1 |                                                                                 |                  |
| 10         |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                 |                  |
| 15         |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                 |                  |
| 20         |  |             | - SM: reddish brown to light brown grading to tan to grayish brown to light gray (change in color alternated from light to dark depending on whether muscovite or biotite in more abundant), damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of remnant rock fabric visible; trace hard rock fragments included; quartz, plagioclase, muscovite, biotite identifiable; micaceous; angular to subangular grains                                                                                                                                                                                                                                                                                                                                                                           |       |                                                                                 |                  |
| 25         |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                 |                  |
| 30         |  |             | - SM: light brown to light gray/white with orangish brown and dark brown mottling, damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; quartz, plagioclase, muscovite, biotite identifiable; trace brittle, gravel sized rock fragments included; angular grains; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |                                                                                 |                  |
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |                  |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

BORING YGWA-3D  
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ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 20:30 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WELL DATA                                                                       |                  |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
| 35         |             | <b>Silty Sand (SM)(Cont)</b><br><br>- SM: light brown to light gray/white with orangish brown and dark brown mottling, damp, loose with zones of medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; quartz, plagioclase, muscovite, biotite, identifiable; trace brittle, gravel sized rock fragments included; angular grains; micaceous                                                                                                                                                                                                                            |                                                                                 |                  |
| 40         |             | <b>Granitic Gneiss</b><br><br>- light gray, very fine to upper fine grain, medium hard, slightly to moderately weathered, slight banding visible, limited recovery, sample primarily broken into gravel sized chips; quartz, plagioclase, biotite, hornblende, porphyroblastic pyrite; overall, sample is too broken up to identify fracturing, but some low angle fractures with partial quartz fracture fill is visible                                                                                                                                                                                                                               |                                                                                 | 754.1            |
| 45         |             | <b>Amphibolite</b><br><br>- dark gray to greenish gray to black, lower fine to upper fine grain, hard, not weathered, slight banding visible in some zones with increased biotite, trace zones with a slight schistose foliation, hornblende, biotite, plagioclase, trace quartz, trace pyrite; zone of augen plagioclase with trace quartz; augen zone and fracture fill/pyrite have upper medium to lower coarse grain size; grain size decreases with depth; low to high angle fractures visible; fracturing tends to be very thin with moderate to total healing visible; grades to/alternates with Biotite Gneiss towards the bottom of the sample |                                                                                 | 749.1            |
| 50         |             | <b>Biotite Gneiss</b><br><br>- medium gray to light gray, lower fine to upper medium grain, hard, not weathered, banded, quartz, plagioclase, biotite, hornblende visible; trace low angle fractures visible; total healing/quartz fracture fill; zone of very coarse grained quartz and plagioclase (Granulite? high grade metamorphic) @ approx. 56', 30 mm thick plagioclase with a 10mm thick vertical seam of translucent, grayish quartz; quartz vein stops @ the contact with the gneiss above and below the zone                                                                                                                                |                                                                                 | 744.1            |
| 55         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                 |                  |
| 60         |             | <b>Amphibolite</b><br><br>- dark gray to greenish gray to black, lower fine to upper fine grain, hard, not weathered, slight banding visible in some zones with increased biotite, hornblende, biotite, plagioclase, trace quartz, trace pyrite; low to high angle fractures visible; moderate to total healing visible                                                                                                                                                                                                                                                                                                                                 |                                                                                 | 735.1            |
| 65         |             | <b>Interlayered/Alternating Biotite Gneiss, Granitic Gneiss and thin (1-2 mm to 4-6 mm) Mica Schist</b><br><br>- medium gray to light gray (Gneiss) with dark gray to greenish gray (Schist), upper fine to lower medium grain, hard to medium hard, not to slightly weathered, banded, slight schistose foliation, quartz,                                                                                                                                                                                                                                                                                                                             |                                                                                 | 731.1            |

Annular Fill: 90/10 Portland Cement/Bentonite Powder

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-3D**  
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ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 20:30 - \\VALTRCF502\X2\B\SMEL\SGINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WELL DATA                                                                       |                  |
|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (CONTINUED)                                                                     |                  |
| 70         |             | plagioclase, biotite, hornblende, muscovite, pyrite visible; low to moderate angled fractures; partial to no visible healing; some visible staining around the interlayered zones of schist<br><b>Interlayered/Alternating Biotite Gneiss, Granitic Gneiss and thin (1-2 mm to 4-6 mm) Mica Schist(Con't)</b><br><b>Granitic Gneiss</b><br>- light gray, very fine to lower fine grain, hard, not weathered, slight banding (white with thin black bands), quartz, plagioclase, decreased biotite, increased muscovite, trace hornblende, trace pyrite; some muscovite grains are upper medium to lower coarse; high to moderate angled fractures; no visible healing/fracture fill | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            | 726.1            |
| 75         |             | <b>Interlayered/Alternating Biotite Gneiss, Granitic Gneiss and thin (1-2 mm to 4-6 mm) Mica Schist</b><br>- medium gray to light gray (Gneiss) with dark gray to greenish gray (Schist), upper fine to lower medium grain, hard to medium hard, not to slightly weathered, banded, slight schistose foliation, quartz, plagioclase, biotite, hornblende, muscovite, pyrite visible; low to moderate angled fractures; partial to no visible healing                                                                                                                                                                                                                                | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            | 720.7<br>(73.4)  |
| 80         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Filter: 20/30 Silica Sand                                                       | 719.1            |
| 85         |             | <b>Granitic Gneiss</b><br>- light gray, very fine to lower fine grain, hard, not weathered, slight banding (white with thin black bands), quartz, plagioclase, trace biotite, muscovite, trace hornblende, trace pyrite; some muscovite grains are upper medium to lower coarse; high to moderate angled fractures; no visible healing/fracture fill                                                                                                                                                                                                                                                                                                                                |                                                                                 | 715.7<br>(78.4)  |
| 90         |             | <b>Interlayered/Alternating Amphibolite and Biotite Gneiss</b><br>- dark gray to black (Amphibolite) with medium gray to light gray (Biotite Gneiss), lower fine to lower coarse grain, hard, not weathered, banded, hornblende, biotite, quartz, plagioclase, muscovite, pyrite; increase in pyrite content and crystal size from above; zones of porphyroblastic plagioclase, occurring along the amphibolite/gneiss contacts; high to moderate fractures visible; quartz fracture fill visible; grain size alternates throughout the sample from fine/medium/coarse                                                                                                              |                                                                                 | 710.1            |
| 95         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Screen: 50 ft; 0.01" slotted                                                    | 708.1            |
| 100        |             | - Interlayered/Alternating Amphibolite and Biotite Gneiss: dark gray to black (Amphibolite) with medium gray to light gray (Biotite Gneiss), lower fine to lower coarse grain, hard, not weathered, banded, hornblende, biotite, quartz, plagioclase, muscovite, pyrite; increase in pyrite content and crystal size from above; zones of porphyroblastic plagioclase, occurring along the amphibolite/gneiss contacts; high to moderate fractures visible; quartz fracture fill visible                                                                                                                                                                                            | Well: 2" OD PVC (SCH 40)                                                        | 712.9<br>(81.2)  |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

BORING YGWA-3D  
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ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 20:30 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft)<br>GRAPHIC<br>LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WELL DATA                                                                          |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Surface:<br>protective aluminum cover with bollards; 4-foot square<br>concrete pad |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ELEV. (CONTINUED) ELEV. (DEPTH)                                                    |
| 105                          | <b>Interlayered/Alternating Amphibolite and Biotite Gneiss(Con't)</b><br><br>- Interlayered/Alternating Amphibolite and Biotite Gneiss: dark gray to black (Amphibolite) with medium gray to light gray (Biotite Gneiss), lower fine to lower coarse grain, hard, not weathered, banded, hornblende, biotite, quartz, plagioclase, muscovite, pyrite; increase in pyrite content and crystal size from above; zones of porphyroblastic plagioclase, occurring along the amphibolite/gneiss contacts; high to moderate fractures visible; quartz fracture fill visible |                                                                                    |
| 110                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                    |
| 115                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                    |
| 120                          | <b>Biotite Gneiss</b><br><br>- medium gray to light gray, lower fine to upper medium grain, hard, not to slightly weathered, banded, quartz, plagioclase, biotite, hornblende visible; trace low angle fractures visible; staining visible associated with weathering                                                                                                                                                                                                                                                                                                 |                                                                                    |
| 125                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                    |
| 130                          | <br><br>- Biotite Gneiss: medium gray to light gray, lower fine to upper medium grain, hard, not to slightly weathered, banded, quartz, plagioclase, biotite, hornblende visible; @ approx. 127' slight mineral dissolution visible along with some staining                                                                                                                                                                                                                                                                                                          |                                                                                    |
|                              | 662.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Screen: 50 ft; 0.01" slotted                                                       |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 662.9                                                                              |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 662.6                                                                              |

Bottom of borehole at 131.5 feet.

Sump: 0.30 ft.



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-4I**  
PAGE 1 OF 1  
ECS37976

**SOUTHERN COMPANY SERVICES, INC.**  
**EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING**

**PROJECT** Plant Yates Hydro-Geological Study

**LOCATION** Newnan, GA

**DATE STARTED** 4/10/2014      **COMPLETED** 5/21/2014      **SURF. ELEV.** 781.9      **COORDINATES:** N:1,254,436.68 E:2,075,455.62

|                   |                  |                  |        |               |           |
|-------------------|------------------|------------------|--------|---------------|-----------|
| <b>CONTRACTOR</b> | Cascade Drilling | <b>EQUIPMENT</b> | PS-150 | <b>METHOD</b> | Rotosonic |
|-------------------|------------------|------------------|--------|---------------|-----------|

**DRILLED BY** D. Wilcox      **LOGGED BY** B. Smelser      **CHECKED BY**      **ANGLE**      **BEARING**

|                     |          |                                   |              |           |                |
|---------------------|----------|-----------------------------------|--------------|-----------|----------------|
| <b>BORING DEPTH</b> | 46.5 ft. | <b>GROUND WATER DEPTH: DURING</b> | <b>COMP.</b> | 17.72 ft. | <b>DELAYED</b> |
|---------------------|----------|-----------------------------------|--------------|-----------|----------------|

**NOTES** Top of Casing Elevation = 784.21

| DEPTH (ft)<br>GRAPHIC LOG |  | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WELL DATA                                                                       |                  |
|---------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |                  |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ELEV.                                                                           | ELEV.<br>(DEPTH) |
|                           |  | <b>Sandy Silt (ML)</b><br>- rusty red, damp, medium stiff, low plasticity, very fine grain, cohesive; micaceous; trace organics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 779.4                                                                           | 779.9<br>(2.0)   |
|                           |  | <b>Silty Sand (SM)</b><br>- reddish brown to light brown, dry, medium dense to loose, no plasticity, lower fine to upper medium grain, some to trace clay decreasing with depth; trace mica; trace organics<br>- SM: medium to light brown to tan, dry, loose, no plasticity, lower fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; noncohesive; trace rock fragments (brittle); trace mica<br>- SM: light brown to tan grading to reddish brown @ 15', damp, loose, no plasticity, lower fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; noncohesive; trace rock fragments (brittle); trace mica<br><br>- SM: reddish brown to tan to white with a greenish tan zone @ approx. 18-20', moist, medium dense, no plasticity, lower fine to upper medium grain, <i>saprolite</i> , visible zones where saprolite has not completely broken down to residual soil and remnant rock fabric visible; zone of more competent saprolite observed; gravel sized rock fragments included; muscovite, biotite, chlorite phyllosilicates visible<br><br>- SM: orangish brown to light gray to white, moist, medium dense, no plasticity, lower fine to upper medium grain, <i>saprolite</i> , increasing rock fragment size and abundance with depth; rock fragments range from coarse gravel to cobble size; angular fragments |                                                                                 |                  |
|                           |  | <b>Interlayered Granitic Gneiss and Biotite Gneiss</b><br>- light gray to white with rusty red to orangish brown staining, lower fine to lower medium grain, medium hard, moderately weathered, trace banding, quartz, biotite, muscovite, plagioclase, hornblende; low to moderate angle fractures visible; slight schistose foliation visible in some weathered zones; some zones highly weathered<br><br>- Interlayered Granitic Gneiss and Biotite Gneiss: light gray to white with zones of dark gray to black, upper fine to lower medium grain, hard, slightly weathered, trace banding, quartz, biotite, muscovite, plagioclase, hornblende, trace garnet; thin zones (1-2 mm to 2-4 mm) of mica schist interlayered with the gneiss; low to moderate angled fractures; total healing observed with quartz fracture fill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 751.4                                                                           | 751.3<br>(30.6)  |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 747.4            |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 745.7<br>(36.2)  |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 735.4            |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 735.7            |
|                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 735.4            |

Bottom of borehole at 46.5 feet.

**BORING YGWA-5I**  
PAGE 1 OF 2  
ECS37976

**LOCATION** Newnan, GA

**NOTES** Top of Casing Elevation = 784.54

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WELL DATA                                                                       |                |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ELEV.                                                                           | ELEV. (DEPTH)  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |                |
| 5          |             | <b>Silty Sand (SM)</b><br>- brown, dry, medium dense, no plasticity, upper fine to lower medium grain, noncohesive; trace organics; angular to sub angular grains<br>- SM: brown, dry, medium dense, no plasticity, upper fine to lower medium grain, slight increase in clay content with depth; cohesive (slight); trace mica; trace coarse grains                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 777.1                                                                           | 780.1<br>(2.0) |
| 10         |             | <b>Poorly-graded Sand (SP)</b><br>- light gray to off white, dry, very loose, no plasticity, upper fine to upper medium grain, noncohesive; upper coarse to coarse gravel sized weathered rock fragments; angular to subangular grains; angular rock fragments<br><br>- SP: med gray to tan to light gray /white with orangish brown to greenish gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of more competent (completely weathered) rock increasing with depth; trace lenses of silt/clay interbedded within the sand/saprolite; brittle upper coarse to lower gravel sized rock fragments included; micaceous<br><br>- SP: light gray/white grading to med gray with orangish brown to dark gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains<br><br>- SP: light gray to med gray, damp, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , increasing in gravel sized rock fragments (completely weathered, very brittle)<br><br>- SP: medium gray to light gray, damp, loose, no plasticity, upper fine to upper coarse grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil with zones of more competent but brittle rock fragments; angular grains; micaceous | 742.1                                                                           |                |

(Continued Next Page)





# LOG OF TEST BORING AND WELL INSTALLATION

BORING YGWA-51  
PAGE 2 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                    | WELL DATA                                                                       |                  |
|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       | (CONTINUED)                                                                     |                  |
|            |             | <b>Partially Weathered Rock</b><br>- light gray, Pulverized Rock (powder) due to sonic drilling; no describable sample                                                                                                                                                                                                                                                                                |                                                                                 | 741.1            |
|            |             | <b>Biotite Gneiss</b><br>- light brown to light gray to white, upper fine to upper medium grain, medium hard to soft, moderately weathered, banded, quartz, biotite, muscovite, plagioclase, hornblende, trace chlorite; low to moderate angled fractures; no visible healing/fracture fill                                                                                                           |                                                                                 | 741.8<br>(40.3)  |
| 45         |             |                                                                                                                                                                                                                                                                                                                                                                                                       | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            |                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | 737.6            |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       | Filter: 20/30 Silica Sand                                                       | (44.5)           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | 735.9            |
| 50         |             |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | (46.2)           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       | Well: 2" OD PVC (SCH 40)                                                        |                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       | Screen: 10 ft; pre-pack                                                         |                  |
| 55         |             | - Biotite Gneiss: light gray to medium gray, upper fine to upper medium grain, medium hard to hard, moderately weathered, banded, quartz, biotite, muscovite, plagioclase, hornblende, trace chlorite; increase in mafic minerals; orangish brown staining visible in zones; low to moderate angled fractures visible; no visible healing/fracture fill; slight schistose foliation observed in zones |                                                                                 | 725.9            |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | 725.6            |
|            |             | Bottom of borehole at 56.5 feet.                                                                                                                                                                                                                                                                                                                                                                      | Sump: 0.30 ft.                                                                  | 725.6            |



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-5D**  
PAGE 1 OF 3  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/11/2014 COMPLETED 5/21/2014 SURF. ELEV. 781.9 COORDINATES: N:1,254,396.67 E:2,076,223.63

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 126.5 ft. GROUND WATER DEPTH: DURING COMP. 6.84 ft. DELAYED

NOTES Top of Casing Elevation = 784.53

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 18:56 - VALTRCF502X2DBSMEL\$GINTPLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WELL DATA                                                                       |
|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ELEV.<br>(DEPTH)                                                                |
| 5          |             | <b>Silty Sand (SM)</b><br>- brown, dry, medium dense, no plasticity, upper fine to lower medium grain, noncohesive; trace organics; angular to sub angular grains<br>- SM: brown, dry, medium dense, no plasticity, upper fine to lower medium grain, slight increase in clay content with depth; cohesive (slight); trace mica; trace coarse grains                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ← Surface Seal: concrete<br>779.9<br>(2.0)                                      |
| 10         |             | <b>Poorly-graded Sand (SP)</b><br>- light gray to off white, dry, very loose, no plasticity, upper fine to upper medium grain, noncohesive; upper coarse to coarse gravel sized weathered rock fragments; angular to subangular grains; angular rock fragments<br><br>- SP: med gray to tan to light gray /white with orangish brown to greenish gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of more competent (completely weathered) rock increasing with depth; trace lenses of silt/clay interbedded within the sand/saprolite; brittle upper coarse to lower gravel sized rock fragments included; micaceous<br><br>- SP: light gray/white grading to med gray with orangish brown to dark gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains | 776.9                                                                           |
| 15         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| 20         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| 30         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| 35         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |
| 40         |             | - SP: light gray to med gray, damp, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , increasing in gravel sized rock fragments (completely weathered, very brittle)<br><br>- SP: medium gray to light gray, damp, loose, no plasticity, upper fine to upper coarse grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil with zones of more competent but brittle rock fragments; angular grains; micaceous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Annular Fill: 90/10 Portland Cement/Bentonite Powder<br><br>742.1               |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-5D**  
PAGE 2 OF 3  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WELL DATA                                                                       |                   |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH)  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | ELEV. (CONTINUED) |
| 45         |             | <b>Biotite Gneiss</b><br>- light gray to white with light brown to tan staining, lower fine to upper fine grain, medium hard to soft, slightly to moderately weathered, banded, quartz, biotite, plagioclase, muscovite, hornblende, trace chlorite; low angle fracturing visible; 1-2 mm to 6-8 mm thick quartz fracture fill; moderate to partial healing; visible weathering characteristics include staining/discoloration and some mineral decomposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                   |
| 50         |             | - Biotite Gneiss: light gray to white with light brown to tan staining, lower fine to upper fine grain, medium hard, moderately weathered, banded, quartz, biotite, plagioclase, muscovite, hornblende, trace chlorite; low to moderate angle fracturing visible; some quartz fracture fill visible; partial to no visible healing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                 |                   |
| 55         |             | - Interlayered/Alternating Biotite Gneiss and Mica Schist: alternating dark gray and white bands (Gneiss) interlayered with thin (1-2 mm to 5-6 mm) dark gray to greenish gray (Schist), upper fine to lower medium grain, medium hard to hard, not weathered, banded, slight schistose foliation associated with the interlayered mica schist, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite, trace chlorite; primarily low to moderate angled fracturing observed, difficult to distinguish between natural and mechanical fractures; no fracture healing visible; fracturing tends to occur along thinly interlayered zones of schist                                                                                                                                                                                                                                                                                                                               |                                                                                 |                   |
| 60         |             | - Interlayered/Alternating Biotite Gneiss and Mica Schist: alternating dark gray and white bands (Gneiss) interlayered with thin (1-2 mm to 5-6 mm) dark gray to greenish gray (Schist), upper fine to lower medium grain, medium hard to hard, not weathered, banded, slight schistose foliation associated with the interlayered mica schist, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite, trace chlorite; primarily low to moderate angled fracturing observed; no to partial healing visible; fracturing tends to occur along thinly interlayered zones of schist; @ approx. 66' and 74', 90-120 mm thick zones of white, localized, coarse grained plagioclase feldspar and quartz (Granulite? unclassified metamorphic) with thinly interlayered mica schist; no banding visible in the plagioclase/quartz zone; trace augen plagioclase surrounded by flaky/bladed habit biotite and muscovite, around the zones associated with the coarse grain plagioclase |                                                                                 |                   |
| 65         |             | - Interlayered/Alternating Biotite Gneiss and Mica Schist: alternating dark gray and white bands (Gneiss) interlayered with thin (1-2 mm to 5-6 mm) dark gray to greenish gray (Schist), upper fine to lower medium grain, medium hard to hard, not to slightly weathered, banded, slight schistose foliation associated with the interlayered mica schist, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite, trace chlorite; primarily low to moderate angled fracturing observed; no to partial healing visible; highly fractured (rubble zone) @ approx. 84-86' with some discoloration/staining                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 |                   |
| 70         |             | - Biotite Gneiss: light gray to white with dark gray to med gray bands, lower medium to upper medium with zones of lower coarse to trace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |                   |
| 75         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 |                   |
| 80         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 |                   |
| 85         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 |                   |

Annular Fill: 90/10 Portland Cement/Bentonite Powder

Annular Seal: 3/8 Hole Plug (medium bentonite chips)

Filter: 20/30 Silica Sand

Screen: 50 ft; 0.01" slotted

(Continued Next Page)

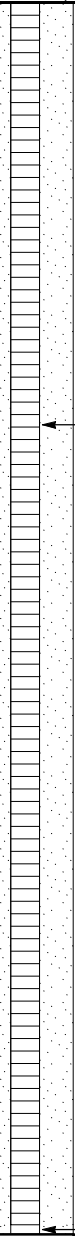
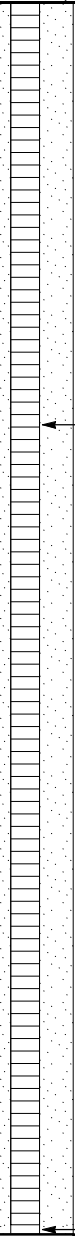


# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-5D**  
PAGE 3 OF 3  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WELL DATA                                                                           |                   |
|------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad     | ELEV.<br>(DEPTH)  |
| 90         |             | upper coarse grain, medium hard to hard, not weathered, banded, trace schistose foliation, quartz, plagioclase, biotite, muscovite, hornblende, pyrite; decrease to trace interlayered dark gray to greenish gray mica schist; low to moderate angled fractures, no visible healing/ fracture fill<br><b>Biotite Gneiss(Cont)</b>                                                                                                                                                                                                                                                             |  | ELEV. (CONTINUED) |
| 95         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                   |
| 100        |             | <b>Interlayered/Alternating Unclassified Metamorphic and Biotite Gneiss</b><br>- white to light gray, lower medium (gneiss) to lower coarse to upper coarse (unclassified metamorphic) grain, hard, not weathered, no banding visible, quartz, plagioclase, biotite, muscovite, hornblende, pyrite; white, coarse grained plagioclase with thin inclusions of porphyroblastic biotite, muscovite crystals in alternating layers; low to moderate angled fractures, no visible healing/ fracture fill; difficult to distinguish between natural and mechanical fractures due to sonic drilling |                                                                                     | 685.9             |
| 105        |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                   |
| 110        |             | <b>Biotite Gneiss</b><br>- alternating light gray and dark gray, lower medium to upper medium with trace lower coarse grain, medium hard to hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite; @ approx. 114-116', highly fractured (rubble zone - no visible weathering or healing/fracture fill) of greenish gray to dark gray to medium gray alternating schist and gneiss; low angled fractures visible; no visible healing/fracture fill                                                                                                    |  | 675.9             |
| 115        |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                   |
| 120        |             | - Biotite Gneiss: alternating light gray and dark gray, lower medium to upper medium with trace lower coarse grain, medium hard to hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite; low angled fractures visible; no visible healing/fracture fill                                                                                                                                                                                                                                                                                             |                                                                                     |                   |
| 125        |             | - Biotite Gneiss: alternating light gray and dark gray, lower medium to upper medium with trace lower coarse grain, medium hard to hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, hornblende, trace pyrite; low angled fractures visible; no visible healing/fracture fill                                                                                                                                                                                                                                                                                             |                                                                                     | 655.7             |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     | 655.4             |

Bottom of borehole at 126.5 feet.

Sump: 0.30 ft.



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-14S**  
PAGE 1 OF 1  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/23/2014 COMPLETED 5/20/2014 SURF. ELEV. 746.8 COORDINATES: N:1,257,828.64 E:2,072,537.24

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 33 ft. GROUND WATER DEPTH: DURING COMP. 12.14 ft. DELAYED

NOTES Top of Casing Elevation = 748.76

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/23/14 13:22 - \\ALTRCF502X2DBSMEL\$GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WELL DATA                                                                       |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Clayey Sand (SC)</b><br>- dark brown grading to rusty red/brown, damp, dense, no plasticity, lower fine to upper fine grain, cohesive; organics visible 0-8" organics decreasing with depth; decreasing clay content with depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surface Seal: concrete<br>744.8<br>(2.0)                                        |
| 5          |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 743.3                                                                           |
| 10         |             | - SM: light brown/tan to orangish brown with zones of dark brown to rusty red, dry, loose, no plasticity, lower fine to lower medium with trace upper medium grain, <i>saprolite</i> , noncohesive; micaceous; visible mineralogy includes quartz, plagioclase, muscovite, biotite; completely weathered to residual soil; trace brittle rock fragments; zone of more competent rock fragments observed; lighter brown and tan zones, muscovite is the dominate mica visible; in darker brown zones biotite is the dominate mica visible; distinct platy crystal habit visible of micas (muscovite or biotite) within zones where saprolite is completely weathered and brittle but still competent enough not to be completely broken down to residual soil | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |
| 15         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 731.9<br>(16.7)                                                                 |
| 20         |             | - SM: light brown/tan to orangish brown with zones of dark brown to rusty red, damp, loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , noncohesive; micaceous; trace lower coarse grains observed; increasing rock fragments with depth; in zones of more competent rock fragments/saprolite, remnant rock fabric visible; lighter brown and tan zones, muscovite is the dominate mica visible; in darker brown zones biotite is the dominate mica visible                                                                                                                                                                                                                                                                          | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 726.0<br>(20.8)                                                                 |
| 30         |             | - SM: light brown to tan to orangish brown, damp, loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , noncohesive; micaceous; trace lower coarse grains observed; increasing rock fragments with depth; in zones of more competent rock fragments/saprolite, remnant rock fragment visible; saprolite (3.5-33.0') remained relatively consistent throughout the unit                                                                                                                                                                                                                                                                                                                                                                  | Filter: 20/30 Silica Sand<br>724.1<br>(22.7)                                    |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Well: 2" OD PVC (SCH 40)                                                        |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Screen: 10 ft; pre-pack                                                         |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 714.1                                                                           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Sump: 0.30 ft. 713.8                                                            |
|            |             | Bottom of borehole at 33.0 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |



# LOG OF TEST BORING

**BORING YGWA-17S**  
PAGE 1 OF 1  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/10/2015 COMPLETED 9/10/2015 SURF. ELEV. 780.2 COORDINATES: N:1,257,602.79 E:2,076,758.31

CONTRACTOR Cascade EQUIPMENT METHOD Rotosonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 37 ft. GROUND WATER DEPTH: DURING 15 ft. COMP. 20 ft. DELAYED 10.3 ft. after 24 hrs.

NOTES Top of casing elev: 783.05

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:03 - \\ALTROFP01\WSHAUGHNESSY\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES2015 PIEZOMETERS\YATES 2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                     | ELEVATION | HCL<br>REACTION<br><small>Weak<br/>Moderate<br/>Strong</small> | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                             |
|---------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
|               |                | <b>Silty Sand (SM)</b><br>- very pale brown (10YR 7/3) dry, fine to coarse-grained, with mica                                            |           |                                                                |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 5             |                | - mottled very pale brown (10YR 7/3) and white (10YR 8/1)                                                                                |           |                                                                |                             | Surface Seal:<br>concrete                                                             |
| 10            |                | - pale brown (10YR 6/3)<br>▽ - brownish yellow (10YR 6/8)<br>- light reddish brown (2.5YR 7/3) thin banding                              |           |                                                                |                             | Annular Fill:<br>cement-bentonite grout                                               |
| 15            |                | ▽ - white (10YR 8/1) wet, massive feldspar and quartz seam<br>- light reddish brown (2.5YR 7/3)<br>- light reddish brown (2.5YR 7/4) wet |           |                                                                |                             | Annular Seal:<br>bentonite pellets                                                    |
| 20            |                | ▼ - mottled pale yellow (2.5Y 8/3) and white / yellowish gray (5Y 8/1)                                                                   |           |                                                                |                             | Filter:<br>silica filter sand                                                         |
| 25            |                |                                                                                                                                          |           |                                                                |                             |                                                                                       |
| 30            |                | - grayish brown (2.5Y 5/2) saprolite<br>- banded pale yellow (2.5Y 7/3) and white / yellowish gray (5Y 8/1)                              |           |                                                                |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                        |
| 35            |                |                                                                                                                                          |           |                                                                |                             |                                                                                       |
| 40            |                | Bottom of borehole at 37.0 feet.                                                                                                         |           |                                                                |                             | Sump:0.299999999999997 ft.                                                            |



# LOG OF TEST BORING

**BORING YGWA-18S**  
PAGE 1 OF 1  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/4/2015 COMPLETED 9/8/2015 SURF. ELEV. 787.6 COORDINATES: N:1,257,116.05 E: 2,077,015.25

CONTRACTOR Cascade EQUIPMENT METHOD Rotosonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 37 ft. GROUND WATER DEPTH: DURING 18 ft. COMP. 19 ft. DELAYED 18.5 ft. after 24 hrs.

NOTES Top of casing elev: 790.57

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:03 - \\ALTR0FP01\WSHAUGHNESSY\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES\2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                          | ELEVATION | HCL<br>REACTION<br>Weak<br>Moderate<br>Strong | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                                                          |
|---------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------|
| 5             |                | <b>Clayey Sand (SC)</b><br>- yellowish red (5YR 5/8) dry, no, fine to medium-grained<br>- with mica                                                                                                                                                                                                           |           |                                               |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad<br>Surface Seal:<br>concrete |
| 10            |                | <b>Silty Sand (SM)</b><br>- mottled reddish yellow (7.5YR 6/8) and very pale brown (10YR 8/4) dry, fine to medium-grained, with mica<br>- mottled pale yellow (2.5Y 7/4) and very pale brown / very pale orange (10YR 8/2) dry                                                                                |           |                                               |                             | Annular Fill:<br>cement-bentonite grout                                                                            |
| 15            |                | - moist<br>- saprolite                                                                                                                                                                                                                                                                                        |           |                                               |                             |                                                                                                                    |
| 20            |                | - banded light yellowish brown (2.5Y 6/3) and white (N9) moist, fine to coarse-grained<br>- pale olive (5Y 6/3) very moist, fine to medium-grained<br>- mottled light yellowish brown (2.5Y 6/3) and dark olive brown (2.5Y 3/3)<br>- mottled pale olive (5Y 6/3), dark olive brown (2.5Y 3/3) and white (N9) |           |                                               |                             |                                                                                                                    |
| 25            |                | - wet                                                                                                                                                                                                                                                                                                         |           |                                               |                             | Annular Seal:<br>bentonite pellets                                                                                 |
| 30            |                | <b>Clayey Silty Sand (SC-SM)</b><br>- pale olive / dusky yellow (5Y 6/4) saturated, fine to coarse-grained, with mica<br>- mottled olive / moderate olive brown (5Y 4/4) and white (N9)<br>- pale yellow (5Y 8/2)                                                                                             |           |                                               |                             | Filter:<br>silica filter sand                                                                                      |
| 35            |                | - banded olive brown (2.5Y 4/4) and white (N9)<br>- regolith<br>- mottled pale yellow (5Y 7/3) and pale yellow (2.5Y 8/2) wet                                                                                                                                                                                 |           |                                               |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                                                     |
| 40            |                | Bottom of borehole at 37.0 feet.                                                                                                                                                                                                                                                                              |           |                                               |                             | Sump: 0.299999999999997 ft.                                                                                        |



# LOG OF TEST BORING

**BORING YGWA-181**  
PAGE 1 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/3/2015 COMPLETED 9/8/2015 SURF. ELEV. 787.9 COORDINATES: N:1,257,090.05 E: 2,077,015.82

CONTRACTOR Cascade EQUIPMENT METHOD Rotasonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 77 ft. GROUND WATER DEPTH: DURING COMP. 19 ft. DELAYED 18.5 ft. after 24 hrs.

NOTES Top of casing elev: 790.57

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:03 - \\ALTRCP01\WSHAUGHNESS\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES\2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                           | ELEVATION | HCL<br>REACTION<br>Weak<br>Moderate<br>Strong | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                             |
|---------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
|               |                | <b>Clayey Sand (SC)</b><br>- olive / light olive brown (5Y 5/6) moist, fine to coarse-grained                                                                                                                                                                  |           |                                               |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 5             |                | <b>Silty Sand (SM)</b><br>- mottled strong brown (7.5YR 5/6) and very pale brown / grayish orange (10YR 7/4) dry, fine to coarse-grained, with mica<br><br>- pale yellow (2.5Y 8/3) dry, some residual quartz gravel                                           |           |                                               |                             | Surface Seal:<br>concrete                                                             |
| 10            |                | - pale yellow (2.5Y 7/3)                                                                                                                                                                                                                                       |           |                                               |                             |                                                                                       |
| 15            |                | - mottled pale yellow (2.5Y 7/3) and yellow (2.5Y 7/6)<br><br>- mottled light brownish gray (2.5Y 6/2) and light gray (2.5Y 7/1) damp                                                                                                                          |           |                                               |                             |                                                                                       |
| 20            |                | <b>Clayey Silty Sand (SC-SM)</b><br>- mottled pale yellow (2.5Y 7/4) and white / yellowish gray (5Y 8/1) wet, fine to coarse-grained, massive white quartz+feldspar (completely weathered), with mica<br>- mottled pale yellow (2.5Y 7/3) and white (2.5Y 8/1) |           |                                               |                             | Annular Fill:<br>cement-bentonite grout                                               |
| 25            |                | - white / yellowish gray (5Y 8/1) fine to coarse-grained, massive white quartz+feldspar (completely weathered), with mica<br>- pale olive (5Y 6/3)                                                                                                             |           |                                               |                             |                                                                                       |
| 30            |                | - banded light olive gray (5Y 6/2) and white (2.5Y 8/1) wet, fine to coarse-grained, with mica<br><br>- banded light yellowish brown (2.5Y 6/3) and white (2.5Y 8/1)                                                                                           |           |                                               |                             |                                                                                       |
| 35            |                | - saprolite                                                                                                                                                                                                                                                    |           |                                               |                             |                                                                                       |
| 40            |                | - mottled light gray (2.5Y 7/2) and white (2.5Y 8/1) wet, fine to coarse-grained                                                                                                                                                                               |           |                                               |                             |                                                                                       |

(Continued Next Page)





# LOG OF TEST BORING

**BORING YGWA-181**  
PAGE 2 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:03 - \\VALTROP01\W\SHAUGNES\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES2015 PIEZOMETERS\YATES 2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                               | ELEVATION | HCL<br>REACTION<br><small>Weak<br/>Moderate<br/>Strong</small> | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                             |
|---------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
|               |                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 45            |                | <b>Clayey Silty Sand (SC-SM) (Con't)</b><br>- mottled light gray (2.5Y 7/2) and white / yellowish gray (5Y 8/1) massive quartz+feldspar                                                                                                                                                                                                                                                                                            |           |                                                                |                             | (CONTINUED)                                                                           |
|               |                | - mottled dark yellowish brown (10YR 4/6) and very dark gray (10YR 3/1) weathered schist seam<br>- mottled light gray (2.5Y 7/2) and white (2.5Y 8/1)                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                       |
| 50            |                | <b>Silty Sand (SM)</b><br>- brown (10YR 5/3) wet, cohesive, fine to coarse-grained                                                                                                                                                                                                                                                                                                                                                 |           |                                                                |                             | Annular Fill:<br>cement-bentonite grout                                               |
| 55            |                | <b>Granitic gneiss</b><br>- transition zone, quartz, interbedded with mica schist<br>- pale yellow (2.5Y 7/3) slightly to completely weathered, with gravelly silty sand (weathered zones)<br>- dark yellowish brown (10YR 4/6) and pale yellow (2.5Y 7/3) fine to coarse grain, medium hard, slightly to completely weathered                                                                                                     |           |                                                                |                             |                                                                                       |
| 60            |                | - yellowish brown (10YR 5/6) and very dark greenish gray (10G 3/1) coarse grain, soft to medium hard, highly weathered, thinly foliated, moderately fractured, fractures sub-horizontal, separates at foliation planes, feldspar, quartz, mica, water stained<br>- dark greenish gray (10BG 4/1) and light bluish gray (5PB 7/1) slightly weathered<br>- yellowish brown (10YR 5/6) and very dark gray (10YR 3/1) highly weathered |           |                                                                |                             | Annular Seal:<br>bentonite pellets<br>Filter:<br>silica filter sand                   |
| 65            |                | - highly weathered, water stained                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                |                             |                                                                                       |
| 70            |                | - grayish brown (10YR 5/2) and black (5Y 2.5/1) coarse grain, moderately weathered, thinly foliated, moderately fractured, fractures sub-horizontal<br>- brownish yellow (10YR 6/8) and white (10R 8/1)<br>- white (10R 8/1) massive feldspar and quartz seam                                                                                                                                                                      |           |                                                                |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                        |
| 75            |                | - grayish brown (10YR 5/2) and white (10R 8/1) massive quartzite seam<br>- thinly foliated<br>- bluish gray (5PB 6/1) and white (10R 8/1) not weathered, fresh competent rock                                                                                                                                                                                                                                                      |           |                                                                |                             |                                                                                       |
|               |                | Bottom of borehole at 77.0 feet.                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                |                             | Sump:0.299999999999997 ft.                                                            |
| 80            |                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                |                             |                                                                                       |
| 85            |                |                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                |                             |                                                                                       |



# LOG OF TEST BORING

**BORING YGWA-20S**  
PAGE 1 OF 1  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/28/2015 COMPLETED 9/29/2015 SURF. ELEV. 764.6 COORDINATES: N:1,255,531.55 E: 2,077,410.37

CONTRACTOR Cascade EQUIPMENT METHOD Rotosonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 27 ft. GROUND WATER DEPTH: DURING 7 ft. COMP. 6.5 ft. DELAYED 6.5 ft. after 24 hrs.

NOTES Top of casing elev: 767.12

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\ALTRCP01\W\SHAUGHNESSY\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES\2015 PIEZOMETERS\YATES 2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                  | ELEVATION | HCL<br>REACTION<br><small>Weak<br/>Moderate<br/>Strong</small> | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                             |
|---------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
|               |                |                                                                                                                                                                                                                                                                                                                       |           |                                                                |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 5             |                | <b>Clayey Silty Sand (SC-SM)</b><br>- dark grayish brown (2.5Y 4/2) wet, fine grained<br>- very pale brown (10YR 7/3) and yellowish brown / moderate yellowish brown (10YR 5/4) fine to coarse-grained, with quartzite gravel<br>- mottled very pale brown (10YR 7/3) and reddish yellow (7.5YR 7/8) moist<br>- moist |           |                                                                |                             | Surface Seal:<br>concrete                                                             |
| 10            |                | - mottled light yellowish brown (2.5Y 6/3) and pale yellow (2.5Y 8/3) very moist, fine to coarse grained<br>- dark grayish brown / dark yellowish brown (10YR 4/2)<br>- mottled brownish yellow / dark yellowish orange (10YR 6/6) and white (10YR 8/1)                                                               |           |                                                                |                             | Annular Fill:<br>cement-bentonite grout                                               |
| 15            |                |                                                                                                                                                                                                                                                                                                                       |           |                                                                |                             | Annular Seal:<br>bentonite pellets                                                    |
| 20            |                | <b>Silty Sand (SM)</b><br>- mottled brownish yellow / dark yellowish orange (10YR 6/6) and white (10YR 8/1) saprolite wet, fine to coarse-grained<br>- light yellowish brown (2.5Y 6/3), pale yellow (2.5Y 8/2) and white (2.5Y 8/1)                                                                                  |           |                                                                |                             | Filter:<br>silica filter sand                                                         |
| 25            |                | <b>Clayey Silty Sand (SC-SM)</b><br>- mottled white (2.5Y 8/1) and pinkish white (5YR 8/2) moist, massive weathered feldspar and quartzite                                                                                                                                                                            |           |                                                                |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                        |
|               |                | Bottom of borehole at 27.0 feet.                                                                                                                                                                                                                                                                                      |           |                                                                |                             | Sump:0.300000000000001 ft.                                                            |
| 30            |                |                                                                                                                                                                                                                                                                                                                       |           |                                                                |                             |                                                                                       |
| 35            |                |                                                                                                                                                                                                                                                                                                                       |           |                                                                |                             |                                                                                       |
| 40            |                |                                                                                                                                                                                                                                                                                                                       |           |                                                                |                             |                                                                                       |



# LOG OF TEST BORING

**BORING YGWA-211**  
PAGE 1 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/23/2015 COMPLETED 9/28/2015 SURF. ELEV. 780.8 COORDINATES: N:1,255,538.27 E: 2,076,768.14

CONTRACTOR Cascade EQUIPMENT METHOD Rotasonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 77 ft. GROUND WATER DEPTH: DURING COMP. 24 ft. DELAYED 24 ft. after 48 hrs.

NOTES Top of casing elev: 783.7

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\ALTRCP01\WSHAUGHNESSY\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES\2015 PZS.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ELEVATION | HCL REACTION<br>Weak<br>Moderate<br>Strong | GROUNDWATER OBSERVATIONS | WELL DATA                                                                             |
|------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                            |                          | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 5          |             | <b>Clayey Sand (SC)</b><br>- mottled strong brown (7.5YR 5/6) and yellowish red / light brown (5YR 5/6) dry, fine to coarse-grained, mica<br><b>Silty Sand (SM)</b><br>- reddish yellow (7.5YR 6/8) soil fine to coarse-grained<br><b>Well-graded Sand (SW)</b><br>- very pale brown (10YR 7/3) fine to coarse-grained, mica, gravel (residual rock)                                                                                                                       |           |                                            |                          | Surface Seal:<br>concrete                                                             |
| 10         |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- pale yellow (2.5Y 8/3) and pale yellow (2.5Y 8/2) dry<br>- fine to medium-grained<br>- yellow (2.5Y 7/6)                                                                                                                                                                                                                                                                                                                  |           |                                            |                          |                                                                                       |
| 15         |             | <b>Silty Sand (SM)</b><br>- mottled yellow (2.5Y 7/6), white (2.5Y 8/1) and olive brown (2.5Y 4/4) saprolite weathered schist, feldspar, quartz, fine to coarse-grained<br><b>Poorly-graded Sand with Silt (SP-SM)</b><br>- mottled white (2.5Y 8/1) and yellowish brown / moderate yellowish brown (10YR 5/4) dry, fine to medium-grained<br>- highly decomposed granitic gneiss interbedded with biotite schist<br>- mottled olive brown (2.5Y 4/3) and white (2.5Y 8/1) |           |                                            |                          |                                                                                       |
| 20         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                            |                          |                                                                                       |
| 25         |             | - yellowish brown / moderate yellowish brown (10YR 5/4)<br>- mottled light olive brown (2.5Y 5/4) and pale yellow (2.5Y 8/3) moist, highly decomposed mica scist<br>- mottled white (2.5Y 8/1) and pale brown (10YR 6/3) dry, highly decomposed granitic gneiss, feldspar quartz, mica                                                                                                                                                                                     |           |                                            |                          |                                                                                       |
| 30         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                            |                          |                                                                                       |
| 35         |             | <b>Well-graded Sand (SW)</b><br>- mottled brown (10YR 4/3) and pale yellow (2.5Y 8/2) moist, fine to coarse grained, mica, quartz<br>- Granitic gneiss interbedded with biotite gneiss: mottled light gray (2.5Y 7/2) and white (2.5Y 8/1)<br>- Bedrock transition zone                                                                                                                                                                                                    |           |                                            |                          |                                                                                       |
| 40         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                            |                          | Annular Fill:<br>cement-bentonite grout                                               |

(Continued Next Page)



# LOG OF TEST BORING

**BORING YGWA-211**  
PAGE 2 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

SAMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\ALTR0P01\WSHAUGNES\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\PLANT YATES 2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                        | ELEVATION | HCL<br>REACTION<br><small>Weak<br/>Moderate<br/>Strong</small> | GROUNDWATER<br>OBSERVATIONS | WELL DATA<br><br>Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
|---------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------|
| 45            |                | (Con't)<br><br>- white (2.5Y 8/1) and dark grayish brown (2.5Y 4/2) coarse grain, soft to hard, slightly to moderately weathered, medium to thick foliation, banded, moderately fractured (vertical to sub-vertical)                                        |           |                                                                |                             | (CONTINUED)                                                                                            |
| 50            |                | - white (2.5Y 8/1), dark grayish brown (2.5Y 4/2) and pale yellow (2.5Y 7/3) coarse grain, soft to hard, not to highly weathered, medium to thick foliation, banded, moderately fractured (near vertical), biotite gneiss                                   |           |                                                                |                             | Annular Fill:<br>cement-bentonite grout                                                                |
| 55            |                |                                                                                                                                                                                                                                                             |           |                                                                |                             |                                                                                                        |
| 60            |                | - gray (2.5Y 6/1), dark gray (2.5Y 4/1) and white (2.5Y 8/1) coarse grain, not to highly weathered, thin to medium foliation, moderately fractured (vertical to sub-vertical), pyrite, biotite, feldspar, quartz<br>- pale yellow / grayish yellow (5Y 8/4) |           |                                                                |                             |                                                                                                        |
| 65            |                |                                                                                                                                                                                                                                                             |           |                                                                |                             | Annular Seal:<br>bentonite pellets<br>Filter:<br>silica filter sand                                    |
| 70            |                | - very dark gray (2.5Y 3/1) and white (2.5Y 8/1) coarse grain, not to slightly weathered, thin to medium foliation, moderately fractured (vertical to sub-vertical)                                                                                         |           |                                                                |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                                         |
| 75            |                |                                                                                                                                                                                                                                                             |           |                                                                |                             |                                                                                                        |
| 80            |                | Bottom of borehole at 77.0 feet.                                                                                                                                                                                                                            |           |                                                                |                             | Sump: 0.299999999999997 ft.                                                                            |
| 85            |                |                                                                                                                                                                                                                                                             |           |                                                                |                             |                                                                                                        |



# LOG OF TEST BORING

**BORING YGWA-301**  
PAGE 1 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/22/2015 COMPLETED 9/23/2015 SURF. ELEV. 760.1 COORDINATES: N: 1,258,421.86 E: 2,071,107.11

CONTRACTOR Cascade EQUIPMENT METHOD Rotasonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 57 ft. GROUND WATER DEPTH: DURING COMP. 34 ft. DELAYED 34 ft. after 48 hrs.

NOTES Top of casing elev: 762.58

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\ALTRCP01\WSHAUGHNESS\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES\2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                | ELEVATION | HCL<br>REACTION<br>Weak<br>Moderate<br>Strong | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                             |
|---------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
| 5             |                | <b>Clayey Sand (SC)</b><br>- yellowish red (5YR 5/8) dry, fine to coarse-grained, with mica<br><br>- mottled yellowish red (5YR 5/8) and strong brown (7.5YR 5/6)                                                                                                                                                   |           |                                               |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 10            |                | <b>Silty Sand (SM)</b><br>- light reddish brown (2.5YR 7/3) fine to coarse-grained, with mica<br>- mottled light gray (5Y 7/1) and very dark grayish brown (2.5Y 3/2) dry<br>- light yellowish brown (2.5Y 6/3) fine to coarse-grained, some fine angular gravel (residual rock)                                    |           |                                               |                             |                                                                                       |
| 15            |                | - brownish yellow / dark yellowish orange (10YR 6/6)<br><br>- light yellowish brown (2.5Y 6/3)                                                                                                                                                                                                                      |           |                                               |                             |                                                                                       |
| 20            |                | - yellowish brown (10YR 5/6) dry, fine to coarse-grained<br><br>- olive yellow (2.5Y 6/6)                                                                                                                                                                                                                           |           |                                               |                             | Annular Fill:<br>cement-bentonite grout                                               |
| 25            |                |                                                                                                                                                                                                                                                                                                                     |           |                                               |                             |                                                                                       |
| 30            |                | <b>Clayey Silty Sand (SC-SM)</b><br>- dark yellowish brown (10YR 4/6) wet, fine to medium grained<br>- dry                                                                                                                                                                                                          |           |                                               |                             |                                                                                       |
| 35            |                | <b>Granitic Gneiss</b><br>- Bedrock transition zone<br>- light gray (2.5Y 7/2), yellow (2.5Y 7/8) and yellowish red (5YR 5/8) coarse grain, soft to medium hard, moderately to completely weathered, inclined, moderately fractured (sub-vertical and on foliation planes), thin to medium foliation, water stained |           |                                               |                             |                                                                                       |
| 40            |                | - light gray (2.5Y 7/2) and brownish yellow (10YR 6/8) coarse grain, soft to medium hard, moderately to completely weathered, inclined,                                                                                                                                                                             |           |                                               |                             |                                                                                       |

(Continued Next Page)



# LOG OF TEST BORING

**BORING YGWA-301**  
PAGE 2 OF 2  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

SAMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\ALTRCP01\WSHAUGNES\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES2015 PIEZOMETERS\YATES 2015 PZS.GPJ

| DEPTH<br>(ft) | GRAPHIC<br>LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                         | ELEVATION | HCL<br>REACTION<br><small>Weak<br/>Moderate<br/>Strong</small> | GROUNDWATER<br>OBSERVATIONS | WELL DATA                                                                                                                             |
|---------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|               |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad                                                 |
| 45            |                | moderately fractured (sub-vertical and on foliation planes), thin to medium foliation, water stained<br><b>Granitic Gneiss (Cont)</b><br>- light gray (10YR 7/1), very pale brown (10YR 7/3) and brownish yellow (10YR 6/8) medium to coarse grain, hard, slightly to moderately weathered, inclined, slight to moderately fractured (sub-vertical to horizontal), quartz, feldspar, biotite |           |                                                                |                             | (CONTINUED)<br>Annular Fill:<br>cement-bentonite grout<br><br>Annular Seal:<br>bentonite pellets<br><br>Filter:<br>silica filter sand |
| 50            |                | - yellowish red / light brown (5YR 5/6) moderately to highly weathered, water stained                                                                                                                                                                                                                                                                                                        |           |                                                                |                             |                                                                                                                                       |
| 55            |                | - light gray (10YR 7/1) and brownish yellow (10YR 6/8) medium to coarse grain, hard, not to slightly weathered, inclined, slight to moderately fractured (horizontal), quartz, feldspar, biotite                                                                                                                                                                                             |           |                                                                |                             | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                                                                        |
|               |                | Bottom of borehole at 57.0 feet.                                                                                                                                                                                                                                                                                                                                                             |           |                                                                |                             | Sump:0.299999999999997 ft.                                                                                                            |
| 60            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |
| 65            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |
| 70            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |
| 75            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |
| 80            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |
| 85            |                |                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                |                             |                                                                                                                                       |

# RECORD OF BOREHOLE YGWA-39/PZ-39

SHEET 1 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 66.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/6/16  
DATE COMPLETED: 7/7/16

NORTHING: 1,255,717.13  
EASTING: 2,073,865.58  
GS ELEVATION: 815.6  
TOC ELEVATION: 818.19 ft

DEPTH W.L.: 19.15 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                          |         |                | SAMPLES       |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS |                                                                                                                                                                       |
|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|---------------|------------|------|-----------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                           | USCS    | GRAPHIC<br>LOG | ELEV.         | SAMPLE NO. | TYPE |                                                     |                                 | REC                                                                                                                                                                   |
|               |                   |                                                                                                                                       |         |                | DEPTH<br>(ft) |            |      |                                                     |                                 |                                                                                                                                                                       |
| 0             | 815               | 0.00 - 0.40<br>topsoil                                                                                                                | TOPSOIL |                | 0.40          |            |      |                                                     | <div>1/2"</div>                 | <b>WELL CASING</b><br>Interval: 0.0'-55.5'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded                                                       |
|               |                   | 0.40 - 7.00<br>poorly sorted SAND with SILT, trace gravel, tan, mica fragments,<br>dry, firm                                          | SP-SM   |                |               | 1          |      | <div>7.00<br/>7.00</div>                            |                                 | <b>WELL SCREEN</b><br>Interval: 55.5'-65.5'<br>Material: U-Pack Schedule 40<br>PVC<br>Diameter: 2'<br>Slot Size: 0.010" Slotted<br>Screen<br>End Cap: Schedule 40 PVC |
| 5             | 810               |                                                                                                                                       |         |                | 808.6         |            |      |                                                     |                                 | <b>FILTER PACK</b><br>Interval: 52.5'-66.0'<br>Type: #1 Type Sand                                                                                                     |
|               |                   | 7.00 - 17.00<br>some silt, tan, dry, firm                                                                                             |         |                | 7.00          |            |      |                                                     |                                 | <b>FILTER PACK SEAL</b><br>Interval: 47.5'-52.5'<br>Type: Bentonite Pellets and<br>Chips                                                                              |
| 10            | 805               |                                                                                                                                       |         |                |               | 2          |      | <div>10.00<br/>10.00</div>                          |                                 | <b>ANNULUS SEAL</b><br>Interval: 0.0'-47.5'<br>Type: Portland Type 1                                                                                                  |
| 15            | 800               |                                                                                                                                       |         |                | 798.6         |            |      |                                                     |                                 | <b>WELL COMPLETION</b><br>Pad: 4"x4"x4"<br>Protective Casing: Aluminum                                                                                                |
|               |                   | 17.00 - 19.00<br>silty SAND, non-plastic fines, orange tan, micaceous, cohesive, firm                                                 | SM      |                | 17.00         |            |      |                                                     |                                 | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic                                                                                               |
|               |                   |                                                                                                                                       |         |                | 796.6         | 3          |      | <div>4.00<br/>4.00</div>                            |                                 |                                                                                                                                                                       |
| 20            | 795               | 19.00 - 21.00<br>poorly graded SAND with SILT, non-plastic fines, moist, firm                                                         | SP-SM   |                | 19.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 794.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   | 21.00 - 24.00<br>silty SAND, 15-20% fines, orange tan with iron staining, wet<br>(saprolite)                                          | SM      |                | 21.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 791.6         | 4          |      | <div>6.00<br/>6.00</div>                            |                                 |                                                                                                                                                                       |
| 25            | 790               | 24.00 - 29.00<br>SAND to silty SAND, some fines, mica, orange tan to tan, severely<br>weathered fragementes, dry to moist (saprolite) | SP-SM   |                | 24.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 786.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
| 30            | 785               | 29.00 - 32.00<br>transitionally weathered rock - sand, some gravel, tan, rock seams,<br>iron staining                                 | PWR     |                | 29.00         | 5          |      | <div>3.80<br/>6.00</div>                            |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 783.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   | 32.00 - 33.00<br>pulverized GNEISS, tan                                                                                               |         |                | 32.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 782.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
| 35            | 780               | 33.00 - 37.00<br>bedrock - biotite GNEISS, fresh to medium weathered, medium<br>strong to extremely strong, iron stains and deposits  | GNEISS  |                | 33.00         | 6          |      | <div>4.00<br/>4.00</div>                            |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 778.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   | 37.00 - 39.00<br>biotite GNEISS, severely weathered, iron staining and deposits                                                       |         |                | 37.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 776.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
| 40            | 775               | 39.00 - 43.00<br>biotite GNEISS, severely weathered,sand layers noted iron staining<br>and deposits                                   |         |                | 39.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   |                                                                                                                                       |         |                | 772.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   | 43.00 - 47.00<br>biotite GNEISS, severely weathered, iron staining and deposits                                                       |         |                | 43.00         |            |      |                                                     |                                 |                                                                                                                                                                       |
| 45            | 770               |                                                                                                                                       |         |                | 768.6         |            |      |                                                     |                                 |                                                                                                                                                                       |
|               |                   | 47.00 - 57.00<br>biotite GNEISS, fresh to slightly weathered, medium strong to<br>extremely strong                                    |         |                | 47.00         | 7          |      | <div>7.00<br/>10.00</div>                           |                                 |                                                                                                                                                                       |
| 50            |                   | Log continued on next page                                                                                                            |         |                |               |            |      |                                                     |                                 |                                                                                                                                                                       |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWA-39/PZ-39

SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 66.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/6/16  
DATE COMPLETED: 7/7/16

NORTHING: 1,255,791.95  
EASTING: 2,073,431.34  
GS ELEVATION: 815.6  
TOC ELEVATION: 818.19 ft

DEPTH W.L.: 19.15 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                 |      |                |                | SAMPLES    |      |               | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES                                                                          | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------|------|----------------|----------------|------------|------|---------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                  | USCS | GRAPHIC<br>LOG | ELEV.          | SAMPLE NO. | TYPE | REC           |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|               |                   |                                                                                                                              |      |                | DEPTH<br>(ft)  |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 50            | 765               | 47.00 - 57.00<br>biotite GNEISS, fresh to slightly weathered, medium strong to extremely strong <i>(Continued)</i>           |      |                |                | 7          |      | 7.00<br>10.00 | <div><div>Bentonite Pellets</div><div></div><div>0.010" Slotted – Screen</div><div>#1 Type Sand</div><div>Sump –</div></div> | <div><div><b>WELL CASING</b><br/>Interval: 0.0'-55.5'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</div><div><b>WELL SCREEN</b><br/>Interval: 55.5'-65.5'<br/>Material: U-Pack Schedule 40 PVC<br/>Diameter: 2'<br/>Slot Size: 0.010" Slotted Screen<br/>End Cap: Schedule 40 PVC</div><div><b>FILTER PACK</b><br/>Interval: 52.5'-66.0'<br/>Type: #1 Type Sand</div><div><b>FILTER PACK SEAL</b><br/>Interval: 47.5'-52.5'<br/>Type: Bentonite Pellets and Chips</div><div><b>ANNULUS SEAL</b><br/>Interval: 0.0'-47.5'<br/>Type: Portland Type 1</div><div><b>WELL COMPLETION</b><br/>Pad: 4'x4'x4"<br/>Protective Casing: Aluminum</div><div><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</div></div> |
| 55            | 760               |                                                                                                                              |      |                | 758.6<br>57.00 |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 60            | 755               | 57.00 - 66.00<br>bitite GNEISS, fresh to moderately weathered, discoloration, iron stains, medium strong to extremely strong |      |                |                | 8          |      | 5.00<br>9.00  |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 65            | 750               |                                                                                                                              |      |                | 749.6          |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|               |                   | Boring completed at 66.00 ft                                                                                                 |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 70            | 745               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 75            | 740               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 80            | 735               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 85            | 730               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 90            | 725               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 95            | 720               |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 100           |                   |                                                                                                                              |      |                |                |            |      |               |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17





# RECORD OF BOREHOLE YGWA-40/PZ-40

SHEET 1 of 1

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 46.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/6/16  
DATE COMPLETED: 7/7/16

NORTHING: 1,255,791.95  
EASTING: 2,073,431.34  
GS ELEVATION: 813.5  
TOC ELEVATION: 815.73 ft

DEPTH W.L.: 23.1 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                                            |        |                | SAMPLES        |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|----------------|------------|------|-----------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                             | USCS   | GRAPHIC<br>LOG | ELEV.          | SAMPLE NO. | TYPE |                                                     |                                 | REC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|               |                   |                                                                                                                                                                         |        |                | DEPTH<br>(ft)  |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 0             |                   | 0.00 - 2.00<br>sandy SILT, fine to medium sand, reddish brown, low plastic                                                                                              | SM     |                | 811.5          | 1          |      |                                                     | Portland<br>Type 1              | <b>WELL CASING</b><br>Interval: 0.0'-35.5'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 35.5'-45.5'<br>Material: U-Pack Schedule 40<br>PVC<br>Diameter: 2'<br>Slot Size: 0.010" Slotted<br>Screen<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 32.5'-46.0'<br>Type: #1 Type Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 27.0'-32.5'<br>Type: Bentonite Pellets and<br>Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-27.0'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4"x4"x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
| 810           |                   | 2.00 - 6.00<br>fine to medium sand, light orange brown, micaceous, dry, loose                                                                                           |        |                | 2.00           |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5             |                   |                                                                                                                                                                         |        |                |                | 807.5      |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 805           |                   | 6.00 - 16.00<br>fine to coarse sand, low plastic silt, some gravel, brown grey to grey, corasening downward, relict laminations, more dense with depth, saprolitic, dry |        |                | 6.00           |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10            |                   |                                                                                                                                                                         |        |                |                | 2          |      | 12.00<br>10.00                                      |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 800           |                   |                                                                                                                                                                         |        |                | 797.5          |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 15            |                   | 16.00 - 17.00<br>coarse, competent                                                                                                                                      |        |                | 16.00<br>796.5 | 3          |      | 3.00<br>3.00                                        |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 795           |                   | 17.00 - 19.00<br>transitionally weathered rock - highly weathered GNEISS, red, white, dark brown                                                                        | PWR    |                | 17.00          |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 20            |                   | 19.00 - 36.00<br>highly weathered biotite GNEISS, oxidized staining                                                                                                     |        |                | 794.5<br>19.00 |            |      | 7.00<br>7.00                                        |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 790           |                   |                                                                                                                                                                         |        |                |                |            | 4    |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 25            |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 785           |                   |                                                                                                                                                                         |        |                |                | 5          |      | 10.00<br>10.00                                      |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 30            |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 780           |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 35            |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 775           |                   | 36.00 - 46.00<br>bedrock - biotite GNEISS, some weathering, trace pyrite                                                                                                |        |                | 777.5<br>36.00 | 6          |      | 9.00<br>10.00                                       |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 40            |                   |                                                                                                                                                                         | GNEISS |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 770           |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 45            |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 765           |                   | Boring completed at 46.00 ft                                                                                                                                            |        |                | 767.5          |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 50            |                   |                                                                                                                                                                         |        |                |                |            |      |                                                     |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Adam M.

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

# RECORD OF BOREHOLE PZ-47/YGWA-47

SHEET 1 of 2

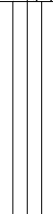
PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 56.50 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/10/16  
DATE COMPLETED: 7/11/16

NORTHING: 1,262,411.84  
EASTING: 2,071,818.05  
GS ELEVATION: 755.6  
TOC ELEVATION: 758.22

DEPTH W.L.: 21.6 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/11/2016  
TIME W.L.: 07:30

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE      ft                                                                                                                                               |        |                                                                                     |                                           | SAMPLES    |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|-------------------------------------------|------------|------|----------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                        | USCS   | GRAPHIC<br>LOG                                                                      | ELEV.                                     | SAMPLE NO. | TYPE | REC            |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|               |                   |                                                                                                                                                                    |        |                                                                                     | DEPTH<br>(ft)                             |            |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 0             | 755               | 0.00 - 10.00<br>no recovery; hydrovac                                                                                                                              |        |                                                                                     |                                           |            |      |                |                                                     | <b>WELL CASING</b><br>Interval: 0.0'-46.1'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 46.1'-56.1'<br>Material: U-Pack Schedule 40<br>PVC<br>Diameter: 2'<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 43.4'-56.5'<br>Type: #1 Type Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 33.7'-43.4'<br>Type: Bentonite Pellets and<br>Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-33.7'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
| 5             | 750               |                                                                                                                                                                    |        |                                                                                     |                                           |            |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10            | 745               | 10.00 - 13.00<br>silt SAND fining downward to low-plasticity CLAY, red, dry loose                                                                                  | SM-CL  |    | 745.6<br>10.00                            | 1          |      | 6.00<br>6.00   |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15            | 740               | 13.00 - 20.00<br>sandy SILT, orange to white, loose, dry                                                                                                           | ML     |    | 742.6<br>13.00                            |            |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 20            | 735               | 20.00 - 21.00<br>highly weathered, mica schist, relict laminations (saprolite)<br>21.00 - 24.00<br>orange to white, loose, dry                                     |        |   | 735.6<br>20.00<br>734.6<br>21.00          | 2          |      | 10.00<br>10.00 |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 25            | 730               | 24.00 - 26.00<br>orange to white, relict laminations, loose, dry (saprolite)                                                                                       |        |  | 731.6<br>24.00                            |            |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 30            | 725               | 26.00 - 28.00<br>well sorted sand with some silt, relict laminations, saprolite -<br>schistose<br>28.00 - 30.00<br>orange to white, relict laminations, loose, dry |        |  | 729.6<br>26.00<br>727.6<br>28.00<br>725.6 | 3          |      | 3.00<br>4.00   |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 35            | 720               | 30.00 - 36.00<br>transitionally weathered rock, highly weathered mica SCHIST,<br>pulverized from drilling, dry                                                     | PWR    |  | 30.00                                     | 4          |      | 6.00<br>6.00   |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 40            | 715               | 36.00 - 46.00<br>bedrock - AMPHIBOLITE/SCHIST, deep oxide staining, secondary<br>mineralization                                                                    | SCHIST |  | 719.6<br>36.00                            | 5          |      | 3.00<br>10.00  |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 45            | 710               | 46.00 - 56.00<br>AMPHIBOLITE/SCHIST grading to GNEISS, secondary<br>mineralization, garnet, pyrite inclusions, some quartzite banding                              |        |  | 709.6<br>46.00                            | 6          |      | 7.00<br>10.00  |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 50            |                   | Log continued on next page                                                                                                                                         |        |                                                                                     |                                           |            |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE PZ-47/YGWA-47

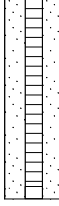
SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 56.50 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/10/16  
DATE COMPLETED: 7/11/16

NORTHING: 1,262,411.84  
EASTING: 2,071,818.05  
GS ELEVATION: 755.6  
TOC ELEVATION: 758.22

DEPTH W.L.: 21.6 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/11/2016  
TIME W.L.: 07:30

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE ft                                                                                                                                      |      |                                                                                   |                        | SAMPLES    |      |               | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES                                 | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------------------------|------------|------|---------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                          | USCS | GRAPHIC<br>LOG                                                                    | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC           |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 50            | 705               | 46.00 - 56.00<br>AMPHIBOLITE/SCHIST grading to GNEISS, secondary<br>mineralization, garnet, pyrite inclusions, some quartzite banding<br>(Continued) |      |  |                        | 6          |      | 7.00<br>10.00 |  | <b>WELL CASING</b><br>Interval: 0.0'-46.1'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 46.1'-56.1'<br>Material: U-Pack Schedule 40<br>PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 43.4'-56.5'<br>Type: #1 Type Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 33.7'-43.4'<br>Type: Bentonite Pellets and<br>Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-33.7'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
| 55            | 700               | Boring completed at 56.50 ft                                                                                                                         |      |                                                                                   | 699.6<br>56.00         |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 60            | 695               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 65            | 690               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 70            | 685               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 75            | 680               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 80            | 675               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 85            | 670               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 90            | 665               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 95            | 660               |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 100           |                   |                                                                                                                                                      |      |                                                                                   |                        |            |      |               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17





# LOG OF TEST BORING

**BORING YGWC-23S**  
PAGE 1 OF 1  
ECS37967

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT CCR Piezometers

LOCATION Plant Yates

DATE STARTED 9/18/2015 COMPLETED 9/21/2015 SURF. ELEV. 762.0 COORDINATES: N:1,256,366.93 E:2,074,734.07

CONTRACTOR Cascade EQUIPMENT METHOD Rotosonic

DRILLED BY L. Yancey LOGGED BY W. Shaughnessy CHECKED BY ANGLE BEARING

BORING DEPTH 36 ft. GROUND WATER DEPTH: DURING 16 ft. COMP. 12.8 ft. DELAYED 12.6 ft. after 24 hrs.

NOTES Top of Casing Elevation = 764.91

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 11/15/15 12:04 - \\VAL.TROFP01\WSHAUGHNESSY\DESKTOP\PLANTS PROJECTS\GEORGIA POWER\YATES2015 PIEZOMETERS\YATES 2015 PZS.GPJ

| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                               | ELEVATION | HCL REACTION<br>Weak<br>Moderate<br>Strong | GROUNDWATER OBSERVATIONS | WELL DATA                                                                             |
|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                    |           |                                            |                          | Completion:<br>protective aluminum cover with bollards;<br>4-foot square concrete pad |
| 5          |             | <b>Clayey Sand (SC)</b><br>- red (2.5YR 4/6) damp, fine to coarse-grained, with mica<br><br>- mottled red (2.5YR 4/6) and reddish yellow (5YR 6/8)                                                                                                                                                                                 |           |                                            |                          | Surface Seal:<br>concrete                                                             |
| 10         |             | <b>Silty Sand (SM)</b><br>- mottled red (2.5YR 4/6) and reddish yellow (5YR 6/8) damp, fine to coarse-grained, with mica                                                                                                                                                                                                           |           |                                            |                          | Annular Fill:<br>cement-bentonite grout                                               |
| 15         |             | ▼ - saprolite<br>- mottled dark brown (7.5YR 3/3), light yellowish brown (10YR 6/4) and black (10YR 2/1) damp                                                                                                                                                                                                                      |           |                                            |                          |                                                                                       |
| 20         |             | - mottled brownish yellow (10YR 6/8) and white (2.5Y 8/1) wet<br>- mottled brown (10YR 4/3) and white (2.5Y 8/1)                                                                                                                                                                                                                   |           |                                            |                          |                                                                                       |
| 25         |             | <b>Clayey Sand (SC)</b><br>- mottled brown (10YR 4/3) and white (2.5Y 8/1) wet, fine to medium-grained<br><b>Silty Sand (SM)</b><br>- mottled light olive brown (2.5Y 5/4) and white (2.5Y 8/1) dry, fine to coarse-grained, massive weathered feldspar and quartzite<br>- mottled yellowish brown (10YR 5/6) and white (2.5Y 8/1) |           |                                            |                          | Annular Seal:<br>bentonite pellets<br>Filter:<br>silica filter sand                   |
| 30         |             | - yellowish brown (10YR 5/8)                                                                                                                                                                                                                                                                                                       |           |                                            |                          | Standpipe:<br>2" OD PVC (SCH 40)<br>Screen:<br>10 ft; pre-pack                        |
| 35         |             | - mottled strong brown (7.5YR 5/6) and very pale brown / very pale orange (10YR 8/2)<br><br>- pale brown (10YR 6/3) damp                                                                                                                                                                                                           |           |                                            |                          |                                                                                       |
|            |             | Bottom of borehole at 36.0 feet.                                                                                                                                                                                                                                                                                                   |           |                                            |                          | Sump:0.299999999999997 ft.                                                            |
| 40         |             |                                                                                                                                                                                                                                                                                                                                    |           |                                            |                          |                                                                                       |

# RECORD OF BOREHOLE YGWC-24SB

SHEET 1 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 54.5 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 10/13/2022  
DATE COMPLETED: 10/13/2022

NORTHING: 1258938.45  
EASTING: 2073965.94  
GS ELEVATION: 761.6  
TOC ELEVATION: 764.89

DEPTH W.L.: 23.4  
ELEVATION W.L.: 707.1  
DATE W.L.: 10/14/2022  
TIME W.L.: 2:45:00 PM

| DEPTH<br>(ft) | DESCRIPTION                                                                                                                                                                                                                                                   | USCS | GRAPHIC<br>LOG | DEPTH<br>(ft) | SAMPLE NO. | PHOTO | REC         | YGWC-24SB<br>MONITORING WELL<br>DIAGRAM and<br>NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WELL<br>CONSTRUCTION<br>DETAILS |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|---------------|------------|-------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| 5             | 0.0 - 18.5<br>(SM) Silty SAND; loose; poorly sorted; fine to medium<br>grained; slightly moist; micaceous; FILL.<br><br>Grading to 5YR 5/6.<br><br>Grading to 7.5YR 6/6.<br><br>Grading to 10YR 6/6.<br><br>Grading to 2.5YR 6/6.<br><br>Grading to 10YR 5/4. | SM   |                | 0.0           | 1          |       | 2.5<br>10.0 | Aquaguard<br>Bentonite<br>Grout<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><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|                                 |

DRILLING COMPANY: Cascade Drilling  
DRILLER: Cory Franklin

CHECKED BY: David Prouty  
DATE: 12/12/2022



# RECORD OF BOREHOLE YGWC-24SB

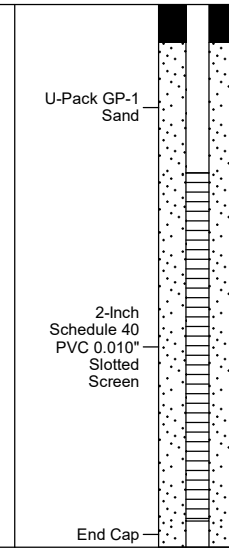
SHEET 2 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 54.5 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 10/13/2022  
DATE COMPLETED: 10/13/2022

NORTHING: 1258938.45  
EASTING: 2073965.94  
GS ELEVATION: 761.6  
TOC ELEVATION: 764.89

DEPTH W.L.: 23.4  
ELEVATION W.L.: 707.1  
DATE W.L.: 10/14/2022  
TIME W.L.: 2:45:00 PM

| DEPTH<br>(ft) | DESCRIPTION                                                                                                                                                                                               | USCS | GRAPHIC<br>LOG | DEPTH<br>(ft) | SAMPLE NO. | PHOTO                                                                              | REC         | YGWC-24SB<br>MONITORING WELL<br>DIAGRAM and<br>NOTES                                                                                                                           | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|---------------|------------|------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 45            | 40.0 - 48.0<br>(ML) Sandy SILT; 2.5Y 6/3, firm; non-plastic; moist; micaceous.<br><br>Grading to 2.5Y 7/2; dry; heavily weathered rock pulverized by sonic rig; friable silty sand and gravel; micaceous. | ML   |                | 40.0          | 5          |  | 8.0<br>10.0 |  <p>U-Pack GP-1 Sand</p> <p>2-Inch Schedule 40 PVC 0.010" Slotted Screen</p> <p>End Cap</p> | <b>WELL CASING</b><br>Interval: 0'-44.5'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 44.3'-54.3'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: 0.8'<br><br><b>FILTER PACK</b><br>Interval: 41'-54.5'<br>Type: U-Pack GP-1 Sand<br>Quantity: 4 bags<br><br><b>FILTER PACK SEAL</b><br>Interval: 37.5'-41'<br>Type: 3/8" Bariod Bentonite Pellets<br>Quantity: 1 x 5 gal bucket<br><br><b>ANNULUS SEAL</b><br>Interval: 0'-41'<br>Type: Aquaguard Bentonite Grout<br>Quantity: 2 bags + 30 gal H2O<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4-Inch Sonic<br>Rock Drill: 4-Inch Sonic<br>Sample Type: Sonic |
| 50            | 48.0 - 51.0<br>(SP) SAND; 2.5Y 6/3; loose; poorly sorted; fine to medium grained; subangular; saturated.                                                                                                  | SP   |                | 48.0          | 6          |  | 5.0<br>4.5  |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|               | 51.0 - 54.5<br>(SP) SAND; 10YR 8/3; loose; poorly sorted; fine to coarse grained; subangular; dry; with trace silt and some friable gravel sized weathered rock.                                          | SP   |                | 51.0          |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 55            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 60            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 65            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 70            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 75            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 80            |                                                                                                                                                                                                           |      |                |               |            |                                                                                    |             |                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

DRILLING COMPANY: Cascade Drilling  
DRILLER: Cory Franklin

CHECKED BY: David Prouty  
DATE: 12/12/2022





# Soil Boring Log

Sheet: 1 of 2

Project Name: Yates  
Project Number: 30061098  
Project Location: Newnan, Georgia

Date Started: 09/21/2020 Date Completed: 09/22/2020  
Logger: Becky Steever Editor: Geoff Gay  
Weather Conditions: Sunny & Warm

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log | PID (ppm) | Graphic Log | Description                                                                                                             | Well Construction |
|--------------|-----------------|-------------|----------------|-----------|-----------|-------------|-------------------------------------------------------------------------------------------------------------------------|-------------------|
| 1            |                 |             |                |           |           |             | (0.0-8.0'); Fill, Silty Clayey Sand (SM); tan to orange-red; fine grained to medium grained sand; no staining/odor; wet | TOC Elev. 740.88  |
| 2            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 3            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 4            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 5            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 6            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 7            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 8            |                 |             |                |           |           |             |                                                                                                                         |                   |
| 9            |                 |             |                |           |           |             | (8.0-10'); Sand; tan to medium gray; medium grained sand; no staining/odor; some silt; moist                            |                   |
| 10           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 11           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 12           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 13           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 14           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 15           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 16           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 17           |                 |             |                |           |           |             | (10-14'); Silty Sandy Clay; mottled gray; orange, tan, and brown; saprolite, relict structure; fine grained sand; dry   |                   |
| 18           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 19           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 20           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 21           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 22           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 23           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 24           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 25           |                 |             |                |           |           |             | (14-35); Silty Sand (SM); medium brown; fine to medium grained sand; no staining/odor; wet                              |                   |
| 26           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 27           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 28           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 29           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 30           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 31           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 32           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 33           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 34           |                 |             |                |           |           |             |                                                                                                                         |                   |
| 35           |                 |             |                |           |           |             |                                                                                                                         |                   |

AQUAGUARD  
30%  
Bentonite  
Solids

Riser

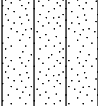
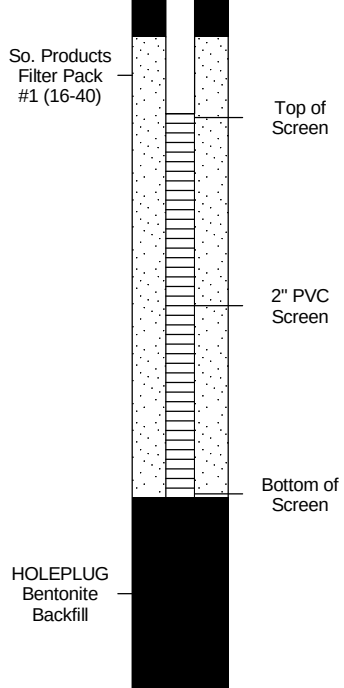
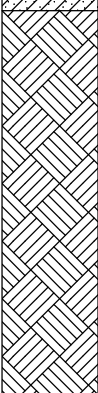
3/8"  
Bentonite  
Pellets Seal

|                        |                                                                                        |
|------------------------|----------------------------------------------------------------------------------------|
| Drilling Co.: Cascade  | Sampling Method: Cont.                                                                 |
| Driller:               | Sampling Interval: Cont.                                                               |
| Drilling Method: Sonic | Water Level Start: 14                                                                  |
| Drilling Fluid: None   | Water Level Finish: 12.1                                                               |
| Remarks:               | Converted to Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|                        | Surface Elev.: 737.7                                                                   |
|                        | North Coord.: 1258547.74                                                               |
|                        | East Coord.: 2073748.73                                                                |

# Soil Boring Log

Sheet: 2 of 2

Project Name: Yates Date Started: 09/21/2020 Logger: Becky Steever  
Project Number: 30061098 Date Completed: 09/22/2020 Editor: Geoff Gay  
Project Location: Newnan, Georgia Weather Conditions: Sunny & Warm

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                          | PID (ppm) | Graphic Log                                                                        | Description                                                                                             | Well Construction                                                                                                                                                                                                                    |
|--------------|-----------------|-------------|----------------|------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 36           |                 |             |                |   |           |   | (35-38'); Silty Sand (SM); brown to gray; fine to medium grained sand; no staining/odor; slightly moist |  <p>So. Products Filter Pack #1 (16-40)</p> <p>Top of Screen</p> <p>2" PVC Screen</p> <p>Bottom of Screen</p> <p>HOLEPLUG Bentonite Backfill</p> |
| 37           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 38           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 39           |                 |             |                |                                                                                    |           |                                                                                    | Same as above, some clay                                                                                |                                                                                                                                                                                                                                      |
| 40           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 41           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 42           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 43           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 44           |                 |             |                |                                                                                    |           |                                                                                    | Pulverized rock sand; pale gray; some fine plagioclase gravel; fine grained sand                        |                                                                                                                                                                                                                                      |
| 45           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 46           |                 |             |                |  |           |  |                                                                                                         |                                                                                                                                                                                                                                      |
| 47           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 48           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 49           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 50           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 51           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 52           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 53           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 54           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 55           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 56           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 57           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 58           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 59           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 60           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 61           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 62           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 63           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 64           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 65           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 66           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 67           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 68           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 69           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 70           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 71           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |
| 72           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                         |                                                                                                                                                                                                                                      |

Remarks: \_\_\_\_\_

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# RECORD OF BOREHOLE YGWC-38/PZ-38

SHEET 1 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 67.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/20/16  
DATE COMPLETED: 7/23/16

NORTHING: 1,256,108.38  
EASTING: 2,074,446.80  
GS ELEVATION: 797.1  
TOC ELEVATION: 799.69 ft

DEPTH W.L.: 26.35 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/23/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                                 |        |                | SAMPLES                |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                     |
|---------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|------------------------|------------|------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                  | USCS   | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC                                                 |                                                                                                                                                     |
| 0             |                   | 0.00 - 1.00<br>silty SAND, goethite, loose, moist                                                                                                            | SM     |                | 796.10                 |            |      |                                                     | <b>WELL CASING</b><br>Interval: 0.0'-37.0'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded                                     |
| 795           |                   | 1.00 - 8.00<br>tan to brown, mottled, loose, dry                                                                                                             |        |                | 1.00                   |            |      |                                                     |                                                                                                                                                     |
| 5             |                   |                                                                                                                                                              |        |                |                        | 1          |      | 5.00<br>7.00                                        |                                                                                                                                                     |
| 790           |                   |                                                                                                                                                              |        |                | 789.10                 |            |      |                                                     |                                                                                                                                                     |
|               |                   | 8.00 - 9.00<br>white to tan, plagioclase, loose, dry                                                                                                         |        |                | 8.00                   |            |      |                                                     | <b>WELL SCREEN</b><br>Interval: 37.0'-47.0'<br>Material: U-Pack Schedule 40<br>PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC |
| 10            |                   | 9.00 - 27.00<br>tan to brown, mottled, micaceous, loose, dry                                                                                                 |        |                | 788.10                 |            |      |                                                     |                                                                                                                                                     |
| 785           |                   |                                                                                                                                                              |        |                | 9.00                   |            |      |                                                     |                                                                                                                                                     |
|               |                   |                                                                                                                                                              |        |                |                        | 2          |      | 10.00<br>10.00                                      |                                                                                                                                                     |
| 15            |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     | <b>FILTER PACK</b><br>Interval: 35.0'-48.0'<br>Type: #1 Type Sand                                                                                   |
| 780           |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
| 20            |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
| 775           |                   |                                                                                                                                                              |        |                |                        | 3          |      | 10.00<br>10.00                                      |                                                                                                                                                     |
| 25            |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     | <b>FILTER PACK SEAL</b><br>Interval: 30.0'-35.0'<br>Type: Bentonite Pellets and<br>Chips                                                            |
| 770           |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
| 30            |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
| 765           |                   |                                                                                                                                                              |        |                |                        | 4          |      | 7.00<br>10.00                                       |                                                                                                                                                     |
| 35            |                   | 34.00 - 37.00<br>transitionally weathered rock - weathered GNEISS to high grade<br>SCHIST, garnet, muscovite, biotite, recrystallization, fractured, friable | PWR    |                | 763.10                 |            |      |                                                     | <b>ANNULUS SEAL</b><br>Interval: 0.0'-30.0'<br>Type: Portland Type 1                                                                                |
| 760           |                   |                                                                                                                                                              |        |                | 34.00                  |            |      |                                                     |                                                                                                                                                     |
|               |                   | 37.00 - 39.00<br>bedrock - muscovite/biotite GNEISS, hornblende, fresh                                                                                       | GNEISS |                | 760.10                 |            |      |                                                     |                                                                                                                                                     |
| 40            |                   |                                                                                                                                                              |        |                | 37.00                  |            |      |                                                     |                                                                                                                                                     |
| 755           |                   |                                                                                                                                                              |        |                | 758.10                 |            |      |                                                     |                                                                                                                                                     |
|               |                   | 39.00 - 40.00<br>muscovite/biotite GNEISS, hornblende, iron staining                                                                                         |        |                | 39.00                  |            |      |                                                     | <b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum                                                                              |
|               |                   | 40.00 - 56.00<br>muscovite/biotite GNEISS, hornblende, fresh                                                                                                 |        |                | 757.10                 |            |      |                                                     |                                                                                                                                                     |
|               |                   |                                                                                                                                                              |        |                | 40.00                  |            |      |                                                     |                                                                                                                                                     |
|               |                   |                                                                                                                                                              |        |                |                        | 5          |      | 7.00<br>10.00                                       |                                                                                                                                                     |
| 50            |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic                                                                             |
|               |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
|               |                   |                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                     |
|               |                   |                                                                                                                                                              |        |                |                        | 6          |      | 6.00<br>10.00                                       |                                                                                                                                                     |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Kirk Fraley  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

# RECORD OF BOREHOLE YGWC-38/PZ-38

SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 67.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/20/16  
DATE COMPLETED: 7/23/16

NORTHING: 1,256,108.38  
EASTING: 2,074,446.80  
GS ELEVATION: 797.1  
TOC ELEVATION: 799.69 ft

DEPTH W.L.: 26.35 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/23/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                             |      |                | SAMPLES                |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------|-------------------|--------------------------------------------------------------------------|------|----------------|------------------------|------------|------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                              | USCS | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 50            |                   | 40.00 - 56.00<br>muscovite/biotite GNEISS, hornblende, fresh (Continued) |      |                |                        | 6          |      | 6.00<br>10.00                                       |  <p>Bentonite Pellet Backfill</p> <p><b>WELL CASING</b><br/>Interval: 0.0'-37.0'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</p> <p><b>WELL SCREEN</b><br/>Interval: 37.0'-47.0'<br/>Material: U-Pack Schedule 40 PVC<br/>Diameter: 2"<br/>Slot Size: 0.010"<br/>End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b><br/>Interval: 35.0'-48.0'<br/>Type: #1 Type Sand</p> <p><b>FILTER PACK SEAL</b><br/>Interval: 30.0'-35.0'<br/>Type: Bentonite Pellets and Chips</p> <p><b>ANNULUS SEAL</b><br/>Interval: 0.0'-30.0'<br/>Type: Portland Type 1</p> <p><b>WELL COMPLETION</b><br/>Pad: 4'x4'x4"<br/>Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</p> |
| 55            |                   | 56.00 - 58.00<br>muscovite/biotite GNEISS, hornblende, iron staining     |      |                | 741.10<br>56.00        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 60            |                   | 58.00 - 67.00<br>muscovite/biotite GNEISS, hornblende, fresh             |      |                | 739.10<br>58.00        |            |      | 7.00<br>10.00                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 65            |                   |                                                                          |      |                |                        | 7          |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 70            |                   | Boring completed at 67.00 ft                                             |      |                | 730.10                 |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 75            |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 80            |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 85            |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 90            |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 95            |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 100           |                   |                                                                          |      |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Kirk Fraley  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWC-41/PZ-41

SHEET 1 of 2

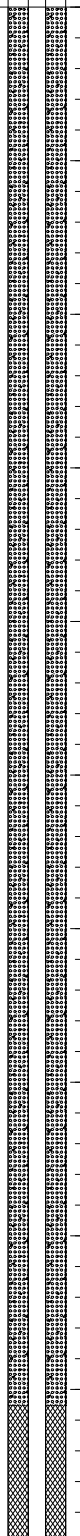
PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 64.50 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/7/16  
DATE COMPLETED: 7/8/16

NORTHING: 1,256,510.62  
EASTING: 2,073,274.41  
GS ELEVATION: 801.1  
TOC ELEVATION: 803.92 ft

DEPTH W.L.: 22.1 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: 07:30

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                         |        |                |               | SAMPLES                  |      |     | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|-------------------|------------------------------------------------------------------------------------------------------|--------|----------------|---------------|--------------------------|------|-----|-----------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                          | USCS   | GRAPHIC<br>LOG | ELEV.         | SAMPLE NO.               | TYPE | REC |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                | DEPTH<br>(ft) |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0             | 800               | 0.00 - 2.00<br>sandy SILT, dark reddish brown, severely weathered gneiss, dry                        | ML     |                |               |                          |      |     |                                                     |                                 |  | <b>WELL CASING</b><br>Interval: 0.0'-54.0'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 54.0'-64.0'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2'<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 51.0'-64.5'<br>Type: #1 Type Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 45.5'-51.0'<br>Type: Bentonite Pellets and Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-45.5'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4"x4"x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
|               |                   | 2.00 - 4.00<br>silty SAND, light brown, dry, non-cohesive                                            | SM     |                |               | 799.10<br>2.00           | 1    |     | 4.00<br>4.00                                        |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 4.00 - 14.00<br>light brown, quartz sand at ~5', dry                                                 |        |                |               | 797.10<br>4.00           |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5             | 795               |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          | 2    |     | 10.00<br>10.00                                      |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10            | 790               |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               | 787.10<br>14.00          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 15            | 785               | 14.00 - 24.00<br>light brown, dry                                                                    |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          | 3    |     | 9.00<br>10.00                                       |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 20            | 780               |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               | 777.10<br>24.00          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 25            | 775               | 24.00 - 29.00<br>trace gravel, sand coarsening, light brown, dry                                     |        |                |               |                          | 4    |     | 5.00<br>5.00                                        |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               | 772.10<br>29.00          |      |     | 5.00<br>5.00                                        |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 30            | 770               | 29.00 - 38.00<br>transitionally weathered rock - highly weathered biotite/muscovite GNEISS           | PWR    |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 35            | 765               |                                                                                                      |        |                |               |                          | 6    |     | 5.00<br>5.00                                        |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               | 763.10<br>38.00<br>762.1 |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 38.00 - 39.00<br>more competent                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 40            | 760               | 39.00 - 44.00<br>bedrock - biotite GNEISS, red to orange staining                                    | GNEISS |                |               | 39.00                    | 7    |     | 4.00<br>5.00                                        |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               | 757.10<br>44.00          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 45            | 755               | 44.00 - 54.00<br>transitionally weathered rock - highly weathered biotite GNEISS, red oxide staining | PWR    |                |               |                          | 8    |     | 5.00<br>10.00                                       |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   |                                                                                                      |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 50            |                   | Log continued on next page                                                                           |        |                |               |                          |      |     |                                                     |                                 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER:

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWC-41/PZ-41

SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 64.50 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/7/16  
DATE COMPLETED: 7/8/16

NORTHING: 1,256,510.62  
EASTING: 2,073,274.41  
GS ELEVATION: 801.1  
TOC ELEVATION: 803.92 ft

DEPTH W.L.: 22.1 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: 07:30

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                 |        |                |                        | SAMPLES    |      |               | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                  |
|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------|--------|----------------|------------------------|------------|------|---------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                  | USCS   | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC           |                                                     |                                                                                                                                                  |
| 50            | 750               | 44.00 - 54.00<br>transitionally weathered rock - highly weathered biotite GNEISS, red<br>oxide staining ( <i>Continued</i> ) | PWR    |                | 747.10                 | 8          |      | 5.00<br>10.00 | <br>0.010" Slotted Screen<br>#1 Type Sand<br>Sump   | <b>WELL CASING</b><br>Interval: 0.0'-54.0'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded                                  |
| 55            | 745               | 54.00 - 64.00<br>bedrock - biotite GNEISS, vertical oxide staining along fractures                                           | GNEISS |                | 54.00                  | 9          |      | 8.00<br>10.00 |                                                     | <b>WELL SCREEN</b><br>Interval: 54.0'-64.0'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC |
| 60            | 740               |                                                                                                                              |        |                | 737.10                 |            |      |               |                                                     | <b>FILTER PACK</b><br>Interval: 51.0'-64.5'<br>Type: #1 Type Sand                                                                                |
| 65            | 735               | Boring completed at 64.50 ft                                                                                                 |        |                | 64.00                  |            |      |               |                                                     | <b>FILTER PACK SEAL</b><br>Interval: 45.5'-51.0'<br>Type: Bentonite Pellets and Chips                                                            |
| 70            | 730               |                                                                                                                              |        |                |                        |            |      |               |                                                     | <b>ANNULUS SEAL</b><br>Interval: 0.0'-45.5'<br>Type: Portland Type 1                                                                             |
| 75            | 725               |                                                                                                                              |        |                |                        |            |      |               |                                                     | <b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum                                                                           |
| 80            | 720               |                                                                                                                              |        |                |                        |            |      |               |                                                     | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic                                                                          |
| 85            | 715               |                                                                                                                              |        |                |                        |            |      |               |                                                     |                                                                                                                                                  |
| 90            | 710               |                                                                                                                              |        |                |                        |            |      |               |                                                     |                                                                                                                                                  |
| 95            | 705               |                                                                                                                              |        |                |                        |            |      |               |                                                     |                                                                                                                                                  |
| 100           |                   |                                                                                                                              |        |                |                        |            |      |               |                                                     |                                                                                                                                                  |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER:

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWC-42/ PZ-42

SHEET 1 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 57.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/7/16  
DATE COMPLETED: 7/8/16

NORTHING: 1,256,882.87  
EASTING: 2,073,326.52  
GS ELEVATION: 795.1  
TOC ELEVATION: 797.86 ft

DEPTH W.L.: 26.2 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                      |        |                | SAMPLES                |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------|----------------|------------------------|------------|------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                       | USCS   | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 0             | 795               | 0.00 - 3.00<br>silty SAND, plastic fines, orange brown, micaceous, firm,<br>decreasing moisture with depth                        | SM     |                | 792.10                 | 1          |      | 7.00<br>7.00                                        | <p><b>WELL CASING</b><br/>Interval: 0.0'-47'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</p> <p><b>WELL SCREEN</b><br/>Interval: 46.6'-56.6'<br/>Material: U-Pack Schedule 40<br/>PVC<br/>Diameter: 2"<br/>Slot Size: 0.010"<br/>End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b><br/>Interval: 46.0'-57.0'<br/>Type: #1 Sand</p> <p><b>FILTER PACK SEAL</b><br/>Interval: 37.5'-46.0'<br/>Type: Bentonite Pellets and<br/>Chips</p> <p><b>ANNULUS SEAL</b><br/>Interval: 0.0'-37.5'<br/>Type: Portland Type 1</p> <p><b>WELL COMPLETION</b><br/>Pad: 4"x4"x4"<br/>Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</p> |
| 5             | 790               | 3.00 - 7.00<br>poorly graded SAND, some silt, tan to black, white to red,<br>micaceous, dry                                       | SP     |                | 3.00                   |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|               |                   | 7.00 - 10.50<br>some silt, tan to black, white to red, dry                                                                        |        |                | 788.10                 | 2          |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10            | 785               | 10.50 - 18.00<br>some silt, tan to black, white to red, increasing biotite, dry                                                   |        |                | 784.60                 |            |      | 10.00<br>10.00                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|               |                   |                                                                                                                                   |        |                | 10.50                  |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15            | 780               |                                                                                                                                   |        |                | 777.10                 | 3          |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|               |                   | 18.00 - 19.00<br>silty SAND, red seam                                                                                             | SM     |                | 18.00                  |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 20            | 775               | 19.00 - 27.00<br>poorly graded SAND, some silt, tan to black, white to red,<br>plagioclase, dry                                   | SP     |                | 19.00                  |            |      | 10.00<br>10.00                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 25            | 770               |                                                                                                                                   |        |                | 768.10                 | 4          |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|               |                   | 27.00 - 30.00<br>no recovery                                                                                                      |        |                | 27.00                  |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30            | 765               | 30.00 - 34.00<br>bedrock - biotite GNEISS, fresh to moderately weathered, medium<br>strong to extremely strong, foliated          | GNEISS |                | 765.10                 |            |      | 5.00<br>10.00                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 35            | 760               | 34.00 - 37.00<br>biotite GNEISS, increased biotite, fresh to moderately weathered,<br>medium strong to extremely strong, foliated |        |                | 761.10                 | 5          |      |                                                     | Bentonite<br>Pellets and<br>Chips                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|               |                   | 37.00 - 40.00<br>biotite GNEISS, fresh to moderately weathered, medium strong to<br>extremely strong, fractured, foliated         |        |                | 758.10                 |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 40            | 755               | 40.00 - 50.00<br>biotite GNEISS, fresh to moderately weathered, medium strong to<br>extremely strong, foliated                    |        |                | 755.10                 |            |      | 8.00<br>10.00                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 45            | 750               |                                                                                                                                   |        |                | 745.10                 | 6          |      | 6.00<br>10.00                                       | #1 Type<br>Sand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 50            |                   | Log continued on next page                                                                                                        |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

# RECORD OF BOREHOLE YGWC-42/ PZ-42

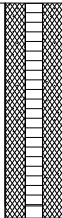
SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 57.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/7/16  
DATE COMPLETED: 7/8/16

NORTHING: 1,256,882.87  
EASTING: 2,073,326.52  
GS ELEVATION: 795.1  
TOC ELEVATION: 797.86 ft

DEPTH W.L.: 26.2 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/8/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                      |      |                                                                                   | SAMPLES                   |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|---------------------------|------------|------|-----------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                       | USCS | GRAPHIC<br>LOG                                                                    | ELEV.                     | SAMPLE NO. | TYPE |                                                     |                                                                                     | REC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|               |                   |                                                                                                                                                   |      |                                                                                   | DEPTH<br>(ft)             |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 50            | 745               | 50.00 - 56.00<br>biotite GNEISS, fresh to moderately weathered, iron staining,<br>medium strong to extremely strong, foliated                     |      |  | 50.00                     | 6          |      | 6.00<br>10.00                                       |  | <p><b>WELL CASING</b><br/>Interval: 0.0'-47'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</p> <p><b>WELL SCREEN</b><br/>Interval: 46.6'-56.6'<br/>Material: U-Pack Schedule 40 PVC<br/>Diameter: 2"<br/>Slot Size: 0.010"<br/>End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b><br/>Interval: 46.0'-57.0'<br/>Type: #1 Sand</p> <p><b>FILTER PACK SEAL</b><br/>Interval: 37.5'-46.0'<br/>Type: Bentonite Pellets and Chips</p> <p><b>ANNULUS SEAL</b><br/>Interval: 0.0'-37.5'<br/>Type: Portlant Type 1</p> <p><b>WELL COMPLETION</b><br/>Pad: 4'x4'x4"<br/>Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</p> |
| 55            | 740               | 56.00 - 57.00<br>biotite GNEISS, fresh to moderately weathered, iron staining,<br>medium strong to extremely strong, foliated, stained, fractured |      |  | 739.10<br>56.00<br>738.10 |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 60            | 735               | Boring completed at 57.00 ft                                                                                                                      |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 65            | 730               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 70            | 725               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 75            | 720               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 80            | 715               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 85            | 710               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 90            | 705               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 95            | 700               |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 100           |                   |                                                                                                                                                   |      |                                                                                   |                           |            |      |                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

# RECORD OF BOREHOLE YGWC-43/ PZ-43

SHEET 1 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 77.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/8/16  
DATE COMPLETED: 7/9/16

NORTHING: 1,257,547.41  
EASTING: 2,073,199.65  
GS ELEVATION: 742.3  
TOC ELEVATION: 744.96 ft

DEPTH W.L.: 30.5 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/9/2016  
TIME W.L.: N/A

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                                                 |        |                | SAMPLES                |            |      | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM AND NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|------------------------|------------|------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                                  | USCS   | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 0             | 745               | 0.00 - 5.00<br>SAND to silty SAND, 10-15% fines, red to tan to brown, micaceous, dry to moist                                                                                | SM     |                |                        |            |      |                                                     | <p><b>WELL CASING</b><br/>Interval: 0.0'-66.5'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</p> <p><b>WELL SCREEN</b><br/>Interval: 66.5'-75.5'<br/>Material: U-Pack Schedule 40 PVC<br/>Diameter: 2"<br/>Slot Size: 0.010"<br/>End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b><br/>Interval: 63.7'-77.0'<br/>Type: #1 Sand</p> <p><b>FILTER PACK SEAL</b><br/>Interval: 58.5'-63.7'<br/>Type: Bentonite Pellets and Chips</p> <p><b>ANNULUS SEAL</b><br/>Interval: 0.0'-58.5'<br/>Type: Portland Type 1</p> <p><b>WELL COMPLETION</b><br/>Pad: 4'x4'x4"<br/>Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</p> |
| 5             | 740               | 5.00 - 6.00<br>10-15% fines, red to tan to brown, plagioclase, micaceous, dry to moist                                                                                       |        |                | 737.30                 |            |      | 8.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   | 6.00 - 14.00<br>10-15% fines, red to tan to brown, micaceous, dry to moist                                                                                                   |        |                | 5.00<br>736.30<br>6.00 |            |      | 8.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 10            | 735               |                                                                                                                                                                              |        |                |                        |            |      | 8.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 9.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 15            | 730               | 14.00 - 28.00<br>transitionally weathered rock - feldspathic GNEISS, moderately to highly weathered, medium strong to extremely strong, discolored, iron stains and deposits | PWR    |                | 728.30                 |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                | 14.00                  |            |      | 3.50                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 4.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 20            | 725               |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 25            | 720               |                                                                                                                                                                              |        |                |                        |            |      | 3.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 8.00                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 30            | 715               | 28.00 - 33.00<br>bedrock - feldspathic GNEISS, fresh to slightly weathered, medium strong to extremely strong, discolored, iron stains and deposits                          | GNEISS |                | 714.30                 |            |      |                                                     | <p>Portland Type 1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|               |                   |                                                                                                                                                                              |        |                | 28.00                  |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 35            | 710               | 33.00 - 38.00<br>feldspathic GNEISS, fresh to lightly weathered, medium strong to extremely strong, fabric, discolored, some iron stains and deposits                        |        |                | 709.30                 |            |      | 10.00                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                | 33.00                  |            |      | 10.00                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 40            | 705               |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 45            | 700               |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 50            |                   | 38.00 - 77.00<br>feldspathic GNEISS, fresh, olive colored mineral, some garnet, quartz, biotite                                                                              |        |                | 704.30                 |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                | 38.00                  |            |      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 10.00                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 10.00                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               |                   |                                                                                                                                                                              |        |                |                        |            |      | 10.00                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Log continued on next page

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17





# RECORD OF BOREHOLE YGWC-43/ PZ-43

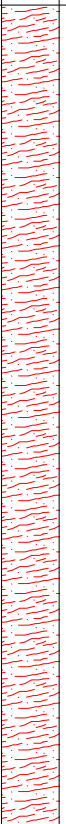
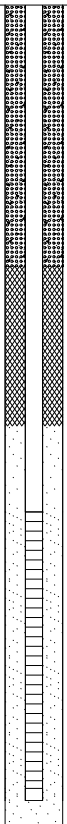
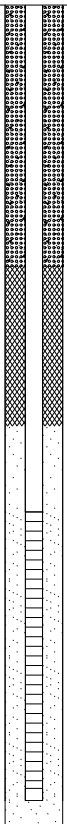
SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 77.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/8/16  
DATE COMPLETED: 7/9/16

NORTHING: 1,257,547.41  
EASTING: 2,073,199.65  
GS ELEVATION: 742.3  
TOC ELEVATION: 744.96 ft

DEPTH W.L.: 30.5 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/9/2016  
TIME W.L.: N/A

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                          |      |                                                                                    | SAMPLES                |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES                                  | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|-------------------|-----------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------|------------------------|------|----------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                           | USCS | GRAPHIC<br>LOG                                                                     | ELEV.<br>DEPTH<br>(ft) | TYPE | REC            |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 50            | 695               | 38.00 - 77.00<br>feldspathic GNEISS, fresh, olive colored mineral, some garnet,<br>quartz, biotite <i>(Continued)</i> |      |  |                        |      | 10.00          |  | <b>WELL CASING</b><br>Interval: 0.0'-66.5'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 66.5'-75.5'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 63.7'-77.0'<br>Type: #1 Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 58.5'-63.7'<br>Type: Bentonite Pellets and Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-58.5'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
| 55            | 690               |                                                                                                                       |      |                                                                                    |                        |      | 10.00<br>10.00 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 60            | 685               |                                                                                                                       |      |                                                                                    |                        |      | 10.00<br>10.00 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 65            | 680               |                                                                                                                       |      |                                                                                    |                        |      | 10.00<br>10.00 |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 70            | 675               |                                                                                                                       |      |                                                                                    |                        |      | 7.00<br>10.00  |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 75            | 670               | Boring completed at 77.00 ft                                                                                          |      |                                                                                    | 665.30                 |      |                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 80            | 665               |                                                                                                                       |      |                                                                                    |                        |      |                |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 85            | 660               |                                                                                                                       |      |                                                                                    |                        |      |                |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 90            | 655               |                                                                                                                       |      |                                                                                    |                        |      |                |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 95            | 650               |                                                                                                                       |      |                                                                                    |                        |      |                |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 100           |                   |                                                                                                                       |      |                                                                                    |                        |      |                |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Courtney Vissman  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17





# RECORD OF BOREHOLE YGWC-49/ PZ-49

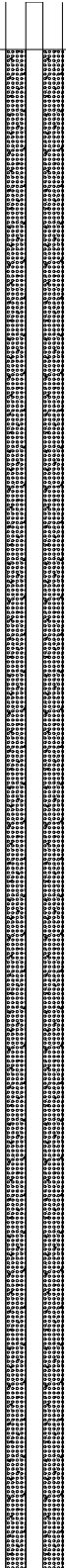
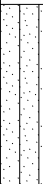
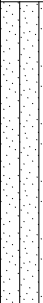
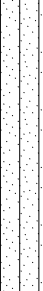
SHEET 1 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 75.90 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/12/16  
DATE COMPLETED: 7/13/16

NORTHING: 1,259,375.23  
EASTING: 2,074,337.51  
GS ELEVATION: 780.1  
TOC ELEVATION: 782.73 ft

DEPTH W.L.: 26.95 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/13/2016  
TIME W.L.: 15:26

| DEPTH<br>(ft)              | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                  |      |                                                                                     |                | SAMPLES    |      |                       | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES                                  | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                  |
|----------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|----------------|------------|------|-----------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|                            |                   | DESCRIPTION                                                                                                                                   | USCS | GRAPHIC<br>LOG                                                                      | ELEV.          | SAMPLE NO. | TYPE | REC                   |                                                                                      |                                                                                                                                                  |
|                            |                   |                                                                                                                                               |      |                                                                                     | DEPTH<br>(ft)  |            |      |                       |                                                                                      |                                                                                                                                                  |
| 0                          |                   | 0.00 - 10.00<br>No recovery; Hydrovac                                                                                                         |      |                                                                                     |                |            |      |                       |  | <b>WELL CASING</b><br>Interval: 0.0'-65.4'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded                                  |
| 5                          | 775               |                                                                                                                                               |      |                                                                                     |                |            |      |                       |                                                                                      | <b>WELL SCREEN</b><br>Interval: 65.4'-75.4'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC |
| 10                         | 770               | 10.00 - 16.00<br>silty SAND, fine sand, greyish brown to reddish brown,<br>non-cohesive, dry, loose                                           | SM   |    | 770.0<br>10.00 | 1          |      | <u>6.00</u><br>6.00   |                                                                                      | <b>FILTER PACK</b><br>Interval: 63.3'-75.9'<br>Type: #1 Sand                                                                                     |
| 15                         | 765               |                                                                                                                                               |      |                                                                                     | 764.0          |            |      |                       |                                                                                      | <b>FILTER PACK SEAL</b><br>Interval: 58.7'-62.2'<br>Type: Bentonite Pellets and Chips                                                            |
| 20                         | 760               | 16.00 - 26.00<br>No recovery due to soil washing out of core barrel                                                                           |      |                                                                                     | 16.00          | 2          |      | <u>0.00</u><br>10.00  |                                                                                      | <b>ANNULUS SEAL</b><br>Interval: 0.0'-58.7'<br>Type: N/A                                                                                         |
| 25                         | 755               |                                                                                                                                               |      |                                                                                     | 754.0          |            |      |                       |                                                                                      | <b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum                                                                           |
| 30                         | 750               | 26.00 - 36.00<br>silty SAND, dark brown to grayish brown, relict laminations, fully<br>weathered schist, dry, loose (saprolite)               | SM   |  | 26.00          | 3          |      | <u>10.00</u><br>10.00 |                                                                                      | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic                                                                          |
| 35                         | 745               |                                                                                                                                               |      |                                                                                     | 774.0          |            |      |                       |                                                                                      |                                                                                                                                                  |
| 40                         | 740               | 36.00 - 46.00<br>softer zone                                                                                                                  |      |  | 36.00          | 4          |      | <u>9.00</u><br>10.00  |                                                                                      |                                                                                                                                                  |
| 45                         | 735               |                                                                                                                                               |      |                                                                                     | 734.0          |            |      |                       |                                                                                      |                                                                                                                                                  |
| 50                         | 730               | 46.00 - 54.00<br>some silt and some gravel increasing with depth, mottled dark<br>brown to orange, relict laminations, dry, loose (saprolite) | SP   |  | 46.00          | 5          |      | <u>8.00</u><br>8.00   |                                                                                      |                                                                                                                                                  |
| Log continued on next page |                   |                                                                                                                                               |      |                                                                                     |                |            |      |                       |                                                                                      |                                                                                                                                                  |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWC-49/ PZ-49

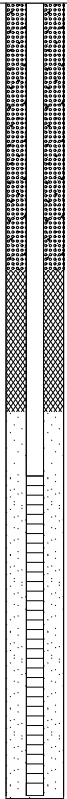
SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 75.90 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/12/16  
DATE COMPLETED: 7/13/16

NORTHING: 1,259,375.23  
EASTING: 2,074,337.51  
GS ELEVATION: 780.1  
TOC ELEVATION: 782.73 ft

DEPTH W.L.: 26.95 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/13/2016  
TIME W.L.: 15:26

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                                                                     |      |                                                                                   |               | SAMPLES    |      |               | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES                                  | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                  |
|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|---------------|------------|------|---------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                      | USCS | GRAPHIC<br>LOG                                                                    | ELEV.         | SAMPLE NO. | TYPE | REC           |                                                                                      |                                                                                                                                                  |
|               |                   |                                                                                                                                                                  |      |                                                                                   | DEPTH<br>(ft) |            |      |               |                                                                                      |                                                                                                                                                  |
| 50            |                   | 46.00 - 54.00<br>some silt and some gravel increasing with depth, mottled dark brown to orange, relict laminations, dry, loose (saprolite)<br><i>(Continued)</i> | SP   |  | 726.0         | 5          |      | 8.00<br>8.00  |  | <b>WELL CASING</b><br>Interval: 0.0'-65.4'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded                                  |
| 55            | 725               | 54.00 - 65.00<br>transitionally weathered rock -biotite mica SCHIST, deeply stained, highly weathered, friable                                                   | PWR  |  | 54.00         | 6          |      | 0.50<br>11.00 |                                                                                      | <b>WELL SCREEN</b><br>Interval: 65.4'-75.4'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC |
| 60            | 720               |                                                                                                                                                                  |      |                                                                                   | 715.0         |            |      |               |                                                                                      | <b>FILTER PACK</b><br>Interval: 63.3'-75.9'<br>Type: #1 Sand                                                                                     |
| 65            | 715               | 65.00 - 76.00<br>highly fractured                                                                                                                                |      |                                                                                   | 65.00         |            |      |               |                                                                                      | <b>FILTER PACK SEAL</b><br>Interval: 58.7'-62.2'<br>Type: Bentonite Pellets and Chips                                                            |
| 70            | 710               |                                                                                                                                                                  |      |                                                                                   |               | 7          |      | 2.00<br>11.00 |                                                                                      | <b>ANNULUS SEAL</b><br>Interval: 0.0'-58.7'<br>Type: N/A                                                                                         |
| 75            | 705               |                                                                                                                                                                  |      |                                                                                   | 704.0         |            |      |               | <b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum               |                                                                                                                                                  |
|               |                   | Boring completed at 75.90 ft                                                                                                                                     |      |                                                                                   | 76.00         |            |      |               | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic              |                                                                                                                                                  |
| 80            | 700               |                                                                                                                                                                  |      |                                                                                   |               |            |      |               |                                                                                      |                                                                                                                                                  |
| 85            | 695               |                                                                                                                                                                  |      |                                                                                   |               |            |      |               |                                                                                      |                                                                                                                                                  |
| 90            | 690               |                                                                                                                                                                  |      |                                                                                   |               |            |      |               |                                                                                      |                                                                                                                                                  |
| 95            | 685               |                                                                                                                                                                  |      |                                                                                   |               |            |      |               |                                                                                      |                                                                                                                                                  |
| 100           | 680               |                                                                                                                                                                  |      |                                                                                   |               |            |      |               |                                                                                      |                                                                                                                                                  |

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE YGWC-50

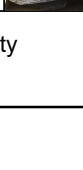
SHEET 1 of 1

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 40.0 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 10/14/2022  
DATE COMPLETED: 10/14/2022

NORTHING: 1258123.39  
EASTING: 2073321.00  
GS ELEVATION: 726.5  
TOC ELEVATION: 729.78

DEPTH W.L.:  
ELEVATION W.L.: 686.5  
DATE W.L.:  
TIME W.L.:

| DEPTH (ft) | DESCRIPTION                                                                                                                                                                               | USCS     | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO                                                                                | REC          | YGWC-50 MONITORING WELL DIAGRAM AND NOTES    | WELL CONSTRUCTION DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------------|------------|--------------------------------------------------------------------------------------|--------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5          | 0.0 - 13.5<br>(SM) Silty SAND; 2.5YR 4/6; poorly sorted; fine to medium grained; moist; FILL.                                                                                             | SM       |             | 0.0        | 1          |    | 5.0<br>10.0  | Aquaguard Bentonite Grout                    | <b>WELL CASING</b><br>Interval: 0'-24.9'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 24.7'-34.7'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: 0.8'<br><br><b>FILTER PACK</b><br>Interval: 21.7'-35.6'<br>Type: U-Pack GP-1 Sand<br>Quantity: 5 bags<br><br><b>FILTER PACK SEAL</b><br>Interval: 17.6'-21.7'<br>Type: 3/8" Baroid Bentonite Pellets<br>Quantity: 1 x 5 gal bucket<br><br><b>ANNULUS SEAL</b><br>Interval: 0'-17.6'<br>Type: Aquaguard Bentonite Grout<br>Quantity: 1 bag + 15 gal H2O<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4-Inch Sonic<br>Rock Drill: 4-Inch Sonic<br>Sample Type: Sonic<br><br><b>BACKFILL</b><br>Interval: 35.6'-40'<br>Type: 3/4" Bentonite Chips<br>Quantity: 1/2 50 lb bag |
| 15         | 13.5 - 14.7<br>(SC) Clayey SILT; 2.5YR 5/3; cohesive; poorly sorted; fine to medium grained; low plasticity; saturated.                                                                   | SC       |             | 13.5       | 2          |    | 10.0<br>10.0 |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 20         | 14.7 - 20.0<br>(SP) SAND; 2.5Y 5/3; poorly sorted; fine to medium grained; subrounded; saturated; organic rich.<br>Peat.<br>Peat.<br>Wood.<br>Peat.                                       | SP       |             | 14.7       | 2          |   | 10.0<br>10.0 |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 25         | 20.0 - 20.8<br>(CL) Sandy CLAY; 2.5Y 5/2; firm; low to medium plasticity; saturated.                                                                                                      | CL       |             | 20.0       | 3          |  | 10.0<br>10.0 |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         | 20.8 - 30.0<br>(SP) SAND; Gley2 6/10G; well graded; fine to medium grained; moist; some silt; some quartzite gravel 20.8-21.3; SAPROLITE.<br>Grading to 2.5Y 5/3.<br>Grading to 2.5Y 4/4. | SP       |             | 20.8       | 3          |  | 10.0<br>10.0 |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 35         | Grading to dry with weathered friable rock fragment; 10YR 8/3 very pale brown.                                                                                                            |          |             |            |            |                                                                                      |              | 3/8" Baroid Bentonite Pellets                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 35         | 30.0 - 31.2<br>(SP) SAND; 10YR 4/6 dark yellowish brown; loose; well graded; medium grained; subrounded; moist.                                                                           | SP       |             | 30.0       | 4          |  | 5.0<br>5.0   | U-Pack GP-1 Sand                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 35         | 31.2 - 35.0<br>(SP) SAND; 10YR 8/3; loose; well graded; fine to coarse grained; subrounded; with some silt and friable weathered rock fragments.                                          | SP       |             | 31.2       | 4          |  | 5.0<br>5.0   | 2-Inch Schedule 40 PVC 0.010" Slotted Screen |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 40         | 35.0 - 40.0<br>ROCK; Gley1 7/N; granite gneiss; slight weathering; thinly foliated; interbedded weathered zones washed away by coring fluids.                                             | BED-ROCK |             | 35.0       | 5          |  | 2.2<br>5.0   | End Cap                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 40         |                                                                                                                                                                                           |          |             |            |            |                                                                                      |              | 3/8" Baroid Bentonite Pellets                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

DRILLING COMPANY: Cascade Drilling  
DRILLER: Cory Franklin

CHECKED BY: David Prouty  
DATE: 12/12/2022





# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-4S**  
PAGE 1 OF 1  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/11/2014 COMPLETED 5/21/2014 SURF. ELEV. 781.8 COORDINATES: N:1,254,442.86 E:2,075,454.20

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 30.3 ft. GROUND WATER DEPTH: DURING COMP. 18.98 ft. DELAYED

NOTES Top of Casing Elevation = 784.25

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 19:09 - VALTRCF502X2DBSMEL\$GINT PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                           | WELL DATA                                                                       |
|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | ELEV. (DEPTH)                                                                   |
|            |             | <b>Sandy Silt (ML)</b><br>- rusty red, damp, medium stiff, low plasticity, very fine grain, cohesive; micaceous; trace organics                                                                                                                                                                                                                                                                                              | Surface Seal: concrete                                                          |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | 779.8                                                                           |
|            |             | <b>Silty Sand (SM)</b><br>- reddish brown to light brown, dry, medium dense to loose, no plasticity, lower fine to upper medium grain, some to trace clay decreasing with depth; trace mica; trace organics                                                                                                                                                                                                                  | (2.0)                                                                           |
| 5          |             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |
|            |             | - SM: medium to light brown to tan, dry, loose, no plasticity, lower fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; noncohesive; trace rock fragments (brittle); trace mica                                                                                                                                                                                              |                                                                                 |
| 10         |             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |
|            |             | - SM: light brown to tan grading to reddish brown @ 15', damp, loose, no plasticity, lower fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; noncohesive; trace rock fragments (brittle); trace mica                                                                                                                                                                        |                                                                                 |
| 15         |             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |
|            |             | - SM: reddish brown to tan to white with a greenish tan zone @ approx. 18-20', moist, medium dense, no plasticity, lower fine to upper medium grain, <i>saprolite</i> , visible zones where saprolite has not completely broken down to residual soil and remnant rock fabric visible; zone of more competent saprolite observed; gravel sized rock fragments included; muscovite, biotite, chlorite phyllosilicates visible |                                                                                 |
| 20         |             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | 763.6                                                                           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | (18.2)                                                                          |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Filter: 20/30 Silica Sand                                                       |
| 30         |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | 761.8                                                                           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | (20.0)                                                                          |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Well: 2" OD PVC (SCH 40)                                                        |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Screen: 10 ft; pre-pack                                                         |
|            |             | - SM: orangish brown to light gray to white, moist, medium dense, no plasticity, lower fine to upper medium grain, <i>saprolite</i> , increasing rock fragment size and abundance with depth; rock fragments range from coarse gravel to cobble size; angular fragments                                                                                                                                                      |                                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | 751.8                                                                           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | Sump: 0.30 ft.                                                                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                              | 751.5                                                                           |
|            |             | Bottom of borehole at 30.3 feet.                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-5S**  
PAGE 1 OF 1  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

DATE STARTED 4/10/2014 COMPLETED 5/21/2014 SURF. ELEV. 782.2 COORDINATES: N:1,254,404.42 E:2,076,211.43

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 39.5 ft. GROUND WATER DEPTH: DURING COMP. 13.53 ft. DELAYED

NOTES Top of Casing Elevation = 784.64

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 18:37 - VALTRCF502X2DBSMEL\$GINT PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                              | WELL DATA                                                                       |
|------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ELEV.<br>(DEPTH)                                                                |
| 5          |             | <b>Silty Sand (SM)</b><br>- brown, dry, medium dense, no plasticity, upper fine to lower medium grain, noncohesive; trace organics; angular to sub angular grains<br>- SM: brown, dry, medium dense, no plasticity, upper fine to lower medium grain, slight increase in clay content with depth; cohesive (slight); trace mica; trace coarse grains                                                                                                            | ← Surface Seal: concrete                                                        |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 780.2<br>(2.0)                                                                  |
| 10         |             | <b>Poorly-graded Sand (SP)</b><br>- light gray to off white, dry, very loose, no plasticity, upper fine to upper medium grain, noncohesive; upper coarse to coarse gravel sized weathered rock fragments; angular to subangular grains; angular rock fragments                                                                                                                                                                                                  |                                                                                 |
| 15         |             | - SP: med gray to tan to light gray /white with orangish brown to greenish gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of more competent (completely weathered) rock increasing with depth; trace lenses of silt/clay interbedded within the sand/saprolite; brittle upper coarse to lower gravel sized rock fragments included; micaceous | ← Annular Fill: 90/10 Portland Cement/Bentonite Powder                          |
| 20         |             | - SP: light gray/white grading to med gray with orangish brown to dark gray mottling, damp, medium dense, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; angular to subangular grains                                                                                                                                                                                                  |                                                                                 |
| 25         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 758.5<br>(23.7)                                                                 |
| 30         |             | - SP: light gray to med gray, damp, loose, no plasticity, upper fine to lower medium grain, <i>saprolite</i> , increasing in gravel sized rock fragments (completely weathered, very brittle)                                                                                                                                                                                                                                                                   | ← Annular Seal: 3/8 Hole Plug (medium bentonite chips)                          |
| 35         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 754.8<br>(27.4)                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 753.0<br>(29.2)                                                                 |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Well: 2" OD PVC (SCH 40)                                                        |
|            |             | - SP: medium gray to light gray, damp, loose, no plasticity, upper fine to upper coarse grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil with zones of more competent but brittle rock fragments; angular grains; micaceous                                                                                                                                                                                                         | ← Screen: 10 ft; pre-pack                                                       |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 743.0                                                                           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ← Sump: 0.30 ft.                                                                |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 742.7                                                                           |

Bottom of borehole at 39.5 feet.





# LOG OF TEST BORING AND WELL INSTALLATION

## BORING YGWA-6S/PZ-6S

**PAGE 1 OF 1**

ECS37976

**SOUTHERN COMPANY SERVICES, INC.**  
**EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING**

**PROJECT** Plant Yates Hydro-Geological Study

**LOCATION** Newnan, GA

**DATE STARTED** 4/22/2014      **COMPLETED** 5/19/2014      **SURF. ELEV.** 779.8      **COORDINATES:** N: 1,260,484.87 E: 2,074,786.49

|                   |                  |                  |        |               |           |
|-------------------|------------------|------------------|--------|---------------|-----------|
| <b>CONTRACTOR</b> | Cascade Drilling | <b>EQUIPMENT</b> | PS-150 | <b>METHOD</b> | Rotosonic |
|-------------------|------------------|------------------|--------|---------------|-----------|

**DRILLED BY** D. Wilcox      **LOGGED BY** B. Smelser      **CHECKED BY**      **ANGLE**      **BEARING**

**BORING DEPTH** 37.2 ft.      **GROUND WATER DEPTH: DURING**      **COMP.** 14.77 ft.      **DELAYED**

**NOTES** Top of Casing Elevation = 782.47

| DEPTH (ft) |  | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ELEV. | WELL DATA                                                                       |                  |
|------------|--|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------|------------------|
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                                                                 |                  |
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |  |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- dark brown, damp, loose, no plasticity, lower fine to upper fine grain, cohesive; trace organics; trace gravel sized rock fragments; angular to subangular grains                                                                                                                                                                                                                                                                                                                 | 776.8 | ← Surface Seal: concrete                                                        | 777.8<br>(2.0)   |
| 5          |  |             | <b>Silty Sand (SM)</b><br>- rusty red, dry, medium dense, no plasticity, lower fine to upper fine grain, cohesive; slight increase in clay content; micaceous                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                 |                  |
| 10         |  |             | - SM: orangish brown to tan grading to light gray/white, dry, medium dense to loose, no plasticity, upper fine to lower medium with trace upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; trace gravel sized rock fragments; rock fragments range from brittle friable to hard/more competent; micaceous; muscovite, chlorite, biotite, quartz, plagioclase identifiable                                                                                                                |       | ← Annular Fill: 90/10 Portland Cement/Bentonite Powder                          |                  |
| 15         |  | ▼           | - SM: medium brown/orangish brown to medium gray with greenish gray mottling, damp, medium dense to loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of remnant banding visible; brittle to hard rock fragments included; chlorite, biotite, muscovite, quartz, plagioclase identifiable; harder/more competent rock fragments tend to be felsic (quartz, plagioclase) and brittle friable rock fragments tend to be mafic (biotite, chlorite) |       |                                                                                 |                  |
| 20         |  |             | - SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous                                                                                                                                    |       | ← Annular Seal: 3/8 Hole Plug (medium bentonite chips)                          | 759.0<br>(20.8)  |
| 25         |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | ← Filter: 20/30 Silica Sand                                                     | 754.8<br>(25.0)  |
| 30         |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                                                                 | 752.9<br>(26.9)  |
| 35         |  |             | - SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous                                                                                                                                    |       | Well: 2" OD PVC (SCH 40)                                                        |                  |
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 742.8 | ← Screen: 10 ft; pre-pack                                                       |                  |
|            |  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | ← Sump: 0.30 ft.                                                                | 742.9<br>742.6   |
|            |  |             | Bottom of borehole at 37.2 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                                                                                 |                  |



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-6I/PZ-6I**

PAGE 1 OF 2  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/21/2014 COMPLETED 5/19/2014 SURF. ELEV. 780.2 COORDINATES: N:1,260,490.02 E:2,074,790.49

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 66.5 ft. GROUND WATER DEPTH: DURING COMP. 14.9 ft. DELAYED

NOTES Top of Casing Elevation = 782.73

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:36 - \\VALTRCF502X2DBSMEL\$GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WELL DATA                                                                       |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ELEV.<br>(DEPTH)                                                                |
|            |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- dark brown, damp, loose, no plasticity, lower fine to upper fine grain, cohesive; trace organics; trace gravel sized rock fragments; angular to subangular grains                                                                                                                                                                                                                                                                                                                   | 778.2<br>(2.0)                                                                  |
| 5          |             | <b>Silty Sand (SM)</b><br>- rusty red, dry, medium dense, no plasticity, lower fine to upper fine grain, cohesive; slight increase in clay content; micaceous                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |
| 10         |             | - SM: orangish brown to tan grading to light gray/white, dry, medium dense to loose, no plasticity, upper fine to lower medium with trace upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; trace gravel sized rock fragments; rock fragments range from brittle friable to hard/more competent; micaceous; muscovite, chlorite, biotite, quartz, plagioclase identifiable                                                                                                                  |                                                                                 |
| 15         |             | ▼ - SM: medium brown/orangish brown to medium gray with greenish gray mottling, damp, medium dense to loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of remnant banding visible; brittle to hard rock fragments included; chlorite, biotite, muscovite, quartz, plagioclase identifiable; harder/more competent rock fragments tend to be felsic (quartz, plagioclase) and brittle/friable rock fragments tend to be mafic (biotite, chlorite) |                                                                                 |
| 20         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |
| 25         |             | - SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous;                                                                                                                                     |                                                                                 |
| 30         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |

Annular Fill: 90/10 Portland Cement/Bentonite Powder

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING YGWA-6I/PZ-6I****PAGE 2 OF 2****ECS37976**

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

**PROJECT** Plant Yates Hydro-Geological Study

**LOCATION** Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:36 - \\VALTRCF02\X2\BMSMEL\GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WELL DATA                                                                       |                  |
|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (CONTINUED)                                                                     |                  |
| 35         |             | <b>Silty Sand (SM)</b> (Con't)<br>- SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous;                                                                                                                                                                                                                               |                                                                                 | 743.2            |
| 40         |             | <b>Unclassified Metamorphic</b><br>- white with orangish brown to pinkish staining, lower medium to upper coarse grain, soft to medium hard, moderately weathered, no banding visible, felsic rock; abundant plagioclase with trace quartz; high to moderate angled fractures; quartz fracture fill visible; low recovery; driller notes rubble zone with no recovery 38-40.5'                                                                                                                                                                                                                                                                                   |                                                                                 | 739.7            |
| 45         |             | <b>Interlayered/Alternating Mica Schist and Granitic Gneiss</b><br>- dark gray/black to greenish gray (schist) with light gray (gneiss), lower fine to upper fine grain size grain, medium hard, moderately to slightly weathered, schistose foliation visible along with slight banding in the zones of interlayered gneiss, gneiss is thinly interlayered and alternating (1-2" to 4-6"); quartz, plagioclase; biotite; chlorite; muscovite; trace pyrite, hornblende; high to moderate angled fractures with rusty red to dark brown staining                                                                                                                 | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            | 732.2            |
| 50         |             | <b>Granitic Gneiss</b><br>- light gray with trace greenish gray interlayering, lower fine to upper fine grain, medium hard to hard, slightly to not weathered, slight banding, slight schistose foliation visible, greenish gray interlayering decreases with depth; thin zone of localized, coarse grained plagioclase with trace to some quartz @ 55-56' (Granulite? Unclassified Metamorphic); increase in siliceous/felsic minerals decrease in mafic; quartz, plagioclase, biotite; muscovite; trace chlorite; trace pyrite; garnet, possible hornblende visible; high to moderate angled fractures; complete to partial healing                            |                                                                                 | 729.7<br>(50.5)  |
| 55         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            | 725.8            |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Filter: 20/30 Silica Sand                                                       | (54.4)           |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 | 724.0            |
| 60         |             | <b>Unclassified Metamorphic</b><br>- white, upper coarse grain, hard, not weathered, zone of coarse grained plagioclase with slightly pinkish quartz; plagioclase crystals are tabular; interlayered within the unclassified plagioclase zone is thinly (1 cm) layered schist, dark greenish gray with bladed to elongated chlorite, biotite, hornblende; moderately to high angled fractures; moderate angled fractures show more fracture fill and more complete healing than high angle fractures                                                                                                                                                             |                                                                                 | (56.2)           |
|            |             | <b>Interlayered/Alternating Granitic Gniess and Mica Schist</b><br>- light gray to white (gneiss) with dark gray /black to greenish gray (schist), lower fine to upper fine with trace lower medium to lower coarse quartz fracture fill grain, medium hard to hard, slightly weathered, banded, schistose foliation visible within some fracture zones and interlayered schist, quartz, plagioclase, biotite, muscovite, trace pyrite, trace chlorite; schist layers range in thickness from 1-2" to 5-6"; moderate to high angle fractures visible; total to moderate healing/quartz fracture fill; quartz fracture fill thickness 1-2 cm to 1-2" in thickness | Well: 2" OD PVC (SCH 40)                                                        |                  |
| 65         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Screen: 10 ft; pre-pack                                                         | 714.0            |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sump: 0.30 ft.                                                                  | 713.7            |
|            |             | Bottom of borehole at 66.5 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                 |                  |





# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-6D**  
PAGE 1 OF 4  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study

LOCATION Newnan, GA

DATE STARTED 4/22/2014 COMPLETED 5/19/2014 SURF. ELEV. 779.5 COORDINATES: N: 1,260,480.15 E: 2,074,782.68

CONTRACTOR Cascade Drilling EQUIPMENT PS-150 METHOD Rotosonic

DRILLED BY D. Wilcox LOGGED BY B. Smelser CHECKED BY ANGLE BEARING

BORING DEPTH 131.5 ft. GROUND WATER DEPTH: DURING COMP. 18.93 ft. DELAYED

NOTES Top of Casing Elevation = 782.02

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:40 - \\ALTRCF502X2DBSMEL\GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WELL DATA                                                                       |                  |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |                  |
|            |             | <b>Poorly-graded Sand with Silt (SP-SM)</b><br>- dark brown, damp, loose, no plasticity, lower fine to upper fine grain, cohesive; trace organics; trace gravel sized rock fragments; angular to subangular grains                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |                  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 | 776.5            |
| 5          |             | <b>Silty Sand (SM)</b><br>- rusty red, dry, medium dense, no plasticity, lower fine to upper fine grain, cohesive; slight increase in clay content; micaceous<br>- SM: orangish brown to tan grading to light gray/white, dry, medium dense to loose, no plasticity, upper fine to lower medium with trace upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; trace gravel sized rock fragments; rock fragments range from brittle/friable to hard/more competent; micaceous; muscovite, chlorite, biotite, quartz, plagioclase identifiable | ← Surface Seal: concrete                                                        | 777.5<br>(2.0)   |
| 10         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |                  |
| 15         |             | - SM: medium brown/orangish brown to medium gray with greenish gray mottling, damp, medium dense to loose, no plasticity, upper fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; zones of remnant banding visible; brittle to hard rock fragments included; chlorite, biotite, muscovite, quartz, plagioclase identifiable; harder/more competent rock fragments tend to be felsic (quartz, plagioclase) and brittle/friable rock fragments tend to be mafic (biotite, chlorite)                                                   |                                                                                 |                  |
| 20         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |                  |
| 25         |             | - SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous                                                                                                                                                                                      |                                                                                 |                  |
| 30         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |                  |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-6D**  
PAGE 2 OF 4  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:40 - VALTRCF02X2DBSMEL\$GINT PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WELL DATA                                                                       |                   |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH)  |
| 35         |             | <b>Silty Sand (SM)</b> (Con't)<br><br>- SM: white to light gray with zones of orangish brown to brown, damp, medium dense to loose, no plasticity, fine to upper medium grain, <i>saprolite</i> , noncohesive; completely weathered to residual soil; remnant banding visible in darker (more mafic) zones; gravel sized, angular rock fragments included; rock fragment size and strength (hardness) increases with depth; micaceous                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | ELEV. (CONTINUED) |
| 40         |             | - No Recovery (36.5-46.5')                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 | 743.0             |
| 45         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 | 733.0             |
| 50         |             | <b>Interlayered/Alternating Granitic Gneiss and Biotite Gneiss</b><br><br>- dark gray to light gray, lower fine to upper fine grain, medium hard, moderately to slightly weathered, trace banding visible, slight schistose foliation visible along thin zones of interlayered schist, quartz, biotite, plagioclase, muscovite, pyrite, trace chlorite, hornblende (elongated crystal habit visible); thin (1") interlayered zones of dark gray/black to greenish gray schist; moderate to high angle fractures visible; difficult to distinguish between natural and mechanical fractures; moderately angled fractures show total to moderate healing; high angled fractures not healed and tend to follow interlayered zones of schist; some dark brown staining within fractures; white to light gray, upper medium quartz fracture fill |                                                                                 | 731.0             |
| 55         |             | <b>Unclassified Metamorphic</b><br><br>- white with trace greenish gray veining (fractures?), upper medium to lower coarse grain, medium hard to hard, moderately to slightly weathered, no visible banding or foliation, Granulite? localized, high grade metamorphic; plagioclase (large, white, tabular to bladed crystals), quartz (pinkish, translucent), muscovite, trace mafics i.e. chlorite, biotite; trace orangish brown staining visible; low angled fracturing with trace high angle fractures; high angle fractures show a greenish gray, schistose appearance; difficult to distinguish between natural and mechanical fracturing; slight to no visible healing                                                                                                                                                              |                                                                                 | 728.0             |
| 60         |             | <b>Granitic Gneiss</b><br><br>- light gray to white, upper fine to lower medium grain, medium hard to hard, slightly weathered, banding visible, orangish brown staining @ approx. 51-52' and 56-56.5'; quartz, plagioclase, chlorite, biotite, hornblende, muscovite, trace pyrite; thin, high angled fractures observed; partially healed with greenish gray fracture fill<br>- Interlayered/Alternating Granitic Gneiss, Biotite Gneiss and Mica Schist: light gray to medium gray to greenish gray, upper fine to lower medium grain, medium hard to hard, slightly to not weathered, banded (dark bands grading from dark gray to greenish gray in appearance, quartz, plagioclase, muscovite, biotite, chlorite, hornblende, increase in pyrite along fracture planes, trace garnet;                                                  | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            |                   |
| 65         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 |                   |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-6D**  
PAGE 3 OF 4  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:40 - \\VALTRCF\S02\X2\B\SMEL\GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WELL DATA                                                                       |                  |
|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH) |
| 70         |             | thin, high angled fractures observed; partially healed with greenish gray fracture fill; interlayered, greenish gray schist averages 1-2 mm thick throughout the unit<br><b>Granitic Gneiss (Cont)</b><br>- Interlayered/Alternating Granitic Gneiss, Biotite Gneiss and Mica Schist: light gray to medium gray to greenish gray, upper fine to upper medium grain, medium hard to hard, not weathered, banded (dark bands grading from dark gray to greenish gray in appearance, quartz, plagioclase, muscovite, biotite, chlorite, hornblende, increase in pyrite along fracture planes, trace garnet; thin, high angled fractures observed; partially healed with greenish gray fracture fill; interlayered, greenish gray schist averages 1-2 mm thick |                                                                                 |                  |
| 75         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                 | 704.5            |
| 80         |             | <b>Unclassified Metamorphic</b><br>- white to light gray with dark gray /black veining (fractures?), upper medium to lower coarse to upper coarse, mafic minerals tend to be upper fine to lower medium grain, medium hard to hard, slightly to not weathered, zones of trace banding visible, Granulite? localized, high grade metamorphic; large, tabular to bladed to elongated plagioclase with quartz; dark veins of biotite, chlorite, trace muscovite; visible platy crystal habit of biotite and muscovite; veining shows a slight schistose foliation                                                                                                                                                                                             | Annular Fill: 90/10 Portland Cement/Bentonite Powder                            | 705.9<br>(73.6)  |
| 85         |             | <b>Interlayered/Alternating Granitic Gneiss and Biotite Gneiss</b><br>- medium gray to light gray grading to white with depth, lower fine to lower medium grain, hard to very hard, not weathered, trace banding with some zones having a schistose foliation, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, trace garnet; pyrite abundant in fractures; thinly (1-2 cm to 1-2") interlayered, dark gray to greenish gray schist; moderate to high angle fractures; trace weathering visible in some fractures                                                                                                                                                                                                                              | Annular Seal: 3/8 Hole Plug (medium bentonite chips)                            | 701.0<br>(78.5)  |
| 90         |             | - Interlayered/Alternating Granitic Gneiss and Biotite Gneiss: medium gray to light gray grading to white with depth, lower fine to lower medium grain, hard to very hard, not weathered, trace banding with some zones having a schistose foliation, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, trace garnet; pyrite abundant in fractures; thinly (1-2 cm to 1-2") interlayered, dark gray to greenish gray schist; moderate to high angle fractures; trace weathering visible in some fractures                                                                                                                                                                                                                                       | Filter: 20/30 Silica Sand                                                       | 698.3<br>(81.2)  |
| 95         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Screen: 50 ft; 0.01" slotted                                                    |                  |
| 100        |             | - Interlayered/Alternating Granitic Gneiss and Biotite Gneiss: medium gray to light gray grading to white with depth, lower fine to lower medium grain, hard to very hard, not weathered, trace banding with some zones having a schistose foliation, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, trace garnet; pyrite abundant in fractures; thinly (1-2 cm to 1-2") interlayered, dark gray to greenish gray schist; moderate to high angle fractures; trace weathering visible in some fractures                                                                                                                                                                                                                                       | Well: 2" OD PVC (SCH 40)                                                        |                  |

(Continued Next Page)



# LOG OF TEST BORING AND WELL INSTALLATION

**BORING PZ-6D**  
PAGE 4 OF 4  
ECS37976

SOUTHERN COMPANY SERVICES, INC.  
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Yates Hydro-Geological Study  
LOCATION Newnan, GA

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 6/10/14 17:40 - \\VALTRCF02\X2\BMS\MEL\GINT\PLANT YATES HYDRO-GEOLOGICAL STUDY.GPJ

| DEPTH (ft) | GRAPHIC LOG | STRATA DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WELL DATA                                                                       |                   |
|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------|
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surface:<br>protective aluminum cover with bollards; 4-foot square concrete pad | ELEV.<br>(DEPTH)  |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 | ELEV. (CONTINUED) |
| 105        |             | Interlayered/Alternating Granitic Gneiss and Biotite Gneiss(Con't)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |                   |
|            |             | 673.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |                   |
| 110        |             | Unclassified Metamorphic<br>- white to light gray with dark gray /black veining (fractures?), upper medium to lower coarse to upper coarse, mafic minerals tend to be upper fine to lower medium grain, medium hard to hard, not weathered, zones of trace banding visible, Granulite? localized, high grade metamorphic; large, tabular to bladed to elongated plagioclase with quartz; dark veins of biotite, chlorite, trace muscovite; visible platy crystal habit of biotite and muscovite; veining shows a slight schistose foliation; moderate to high angled fractures; partial healing/fracture fill visible                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |                   |
| 115        |             | - Unclassified Metamorphic: white to light gray with dark gray /black veining (fractures?), upper medium to lower coarse to upper coarse, mafic minerals tend to be upper fine to lower medium grain, medium hard to hard, not weathered, zones of trace banding visible, Granulite? localized, high grade metamorphic; large, tabular to bladed to elongated plagioclase with quartz; dark veins of biotite, chlorite, trace muscovite; visible platy crystal habit of biotite and muscovite; veining shows a slight schistose foliation                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Screen: 50 ft; 0.01" slotted                                                    |                   |
| 120        |             | 658.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |                   |
| 125        |             | Interlayered/Alternating Granitic Gneiss and Biotite Gneiss<br>- medium gray to light gray grading to white with depth, lower fine to lower medium grain, hard to very hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, trace garnet; less, thinly interlayered, dark gray to greenish gray schist than above; moderate to high angle fractures; no visible healing/fracture fill; trace weathering visible in some fractures; little to no schistose foliation observed<br>- Interlayered/Alternating Granitic Gneiss and Biotite Gneiss: medium gray to light gray grading to white with depth, lower fine to lower medium grain, hard to very hard, not weathered, banded, quartz, plagioclase, biotite, muscovite, hornblende, pyrite, trace garnet; less, thinly interlayered, dark gray to greenish gray schist than above; moderate to high angle fractures; no visible healing/fracture fill; trace weathering visible in some fractures |                                                                                 |                   |
| 130        |             | 648.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |                   |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 | 648.3             |
|            |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 | 648.0             |

Bottom of borehole at 131.5 feet.

Sump:0.30 ft.

# RECORD OF BOREHOLE PZ-24IB

SHEET 1 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 70.4 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 10/11/2022  
DATE COMPLETED: 10/11/2022

NORTHING: 1258927.49  
EASTING: 2073952.22  
GS ELEVATION: 761.9  
TOC ELEVATION: 764.92

DEPTH W.L.: 25.3  
ELEVATION W.L.: 691.5  
DATE W.L.: 10/14/2022  
TIME W.L.: 2:55:00 PM

| DEPTH (ft)  | DESCRIPTION                                                                    | USCS | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO | REC          | PZ-24IB MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|--------------------------------------------------------------------------------|------|-------------|------------|------------|-------|--------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.0 - 20.0  | (ML) Sandy SILT; red; stiff; non-plastic; slightly moist; FILL.                |      |             | 0.0        |            |       |              |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5           | Grading to 2.5YR 5/6.                                                          |      |             |            | 1          |       | 7.5<br>10.0  |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 10          | Grading to 2.5YR 7/6.<br>Grading to 7.5YR 5/3.<br>Grading to 10YR 7/4.         | ML   |             |            | 2          |       | 7.0<br>10.0  | Aquaguard Bentonite Grout                 | <b>WELL CASING</b><br>Interval: 0'-60.2'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 60'-70'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: 0.8'<br><br><b>FILTER PACK</b><br>Interval: 57'-70.4"<br>Type: U-Pack GP-1 Sand<br>Quantity: 5 bags<br><br><b>FILTER PACK SEAL</b><br>Interval: 53.5'-57'<br>Type: 3/8" Bariod Bentonite Pellets<br>Quantity: 1 x 5 gal bucket<br><br><b>ANNULUS SEAL</b><br>Interval: 0'-53.5'<br>Type: Aquaguard Bentonite Grout<br>Quantity: 3 bags + 45 gal H2O<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4-Inch Sonic<br>Rock Drill: 4-Inch Sonic<br>Sample Type: Sonic |
| 20.0 - 52.3 | (SP) SAND; loose; well sorted; fine grained; moist; with some silt; SAPROLITE. |      |             | 20.0       |            |       |              |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 25          | Quartz; coarse grained; subangular; wet.<br>Grading to 2.5YR 7/3; trace clay.  |      |             |            | 3          |       | 9.0<br>10.0  |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 30          | Coarse micaceous layer with iron staining.                                     | SP   |             |            | 4          |       | 10.0<br>10.0 | 2-Inch Schedule 40 PVC Riser              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 35          |                                                                                |      |             |            |            |       |              |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 40          |                                                                                |      |             |            |            |       |              |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

DRILLING COMPANY: Cascade Drilling  
DRILLER: Cory Franklin

CHECKED BY: David Prouty  
DATE: 12/12/2022





# RECORD OF BOREHOLE PZ-24IB

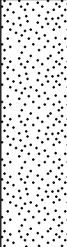
SHEET 2 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 70.4 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 10/11/2022  
DATE COMPLETED: 10/11/2022

NORTHING: 1258927.49  
EASTING: 2073952.22  
GS ELEVATION: 761.9  
TOC ELEVATION: 764.92

DEPTH W.L.: 25.3  
ELEVATION W.L.: 691.5  
DATE W.L.: 10/14/2022  
TIME W.L.: 2:55:00 PM

| DEPTH (ft) | DESCRIPTION                                                                                                                                           | USCS     | GRAPHIC LOG                                                                         | DEPTH (ft) | SAMPLE NO. | PHOTO                                                                                | REC          | PZ-24IB MONITORING WELL DIAGRAM and NOTES    | WELL CONSTRUCTION DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------|------------|------------|--------------------------------------------------------------------------------------|--------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 45         | 20.0 - 52.3<br>(SP) SAND; loose; well sorted; fine grained; moist; with some silt; SAPROLITE.<br>Grading to 2.5Y 7/3.                                 | SP       |    | 20.0       | 5          |    | 10.0<br>10.0 | 2-Inch Schedule 40 PVC Riser                 | <b>WELL CASING</b><br>Interval: 0'-60.2'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 60'-70'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: 0.8"<br><br><b>FILTER PACK</b><br>Interval: 57'-70.4'<br>Type: U-Pack GP-1 Sand<br>Quantity: 5 bags<br><br><b>FILTER PACK SEAL</b><br>Interval: 53.5'-57'<br>Type: 3/8" Bariod Bentonite Pellets<br>Quantity: 1 x 5 gal bucket<br><br><b>ANNULUS SEAL</b><br>Interval: 0'-53.5'<br>Type: Aquaguard Bentonite Grout<br>Quantity: 3 bags + 45 gal H2O<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4-Inch Sonic<br>Rock Drill: 4-Inch Sonic<br>Sample Type: Sonic |
| 50         | Grading to 2.5Y 6/3.                                                                                                                                  |          |                                                                                     |            |            |                                                                                      |              |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 55         | 52.3 - 55.0<br>(SP) SAND; 2.5Y 6/3; poorly sorted; fine to coarse grained; subangular; dry; with some silt; some friable gravel sized weathered rock. | SP       |    | 52.3       | 6          |    | 5.0<br>5.0   |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 55         | 55.0 - 59.7<br>(SP) SAND; 2.5Y 7/3; loose; poorly sorted; fine to medium grained; subangular; with trace coarse mica; fines washed away with coring.  | SP       |   | 55.0       | 7          |   | 3.5<br>5.0   | 3/8" Bariod Bentonite Pellets                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 60         | 59.7 - 70.4<br>ROCK; granitic gneiss; 7.5YR 8/1; thin to moderately foliated; moderately weathered along foliation.                                   |          |  | 59.7       |            |  |              | U-Pack GP-1 Sand                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 65         | Grading to GLEY1 8/N; granitic gneiss; slight weathering; thinly foliated.                                                                            | BED-ROCK |  |            | 8          |  | 6.0<br>10.4  | 2-Inch Schedule 40 PVC 0.010" Slotted Screen |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 70         | Near vertical fracture with weathering and iron staining on surface.                                                                                  |          |                                                                                     |            |            |  |              | End Cap                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 75         |                                                                                                                                                       |          |                                                                                     |            |            |                                                                                      |              |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 80         |                                                                                                                                                       |          |                                                                                     |            |            |                                                                                      |              |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

DRILLING COMPANY: Cascade Drilling  
DRILLER: Cory Franklin

CHECKED BY: David Prouty  
DATE: 12/12/2022



# RECORD OF BOREHOLE PZ-35

SHEET 1 of 1

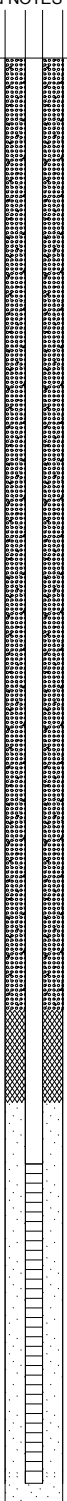
PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 47.10 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/13/16  
DATE COMPLETED: 7/20/16

NORTHING: 1,258,593.13  
EASTING: 2,073,805.49  
GS ELEVATION: 740.9  
TOC ELEVATION: 743.81

DEPTH W.L.: 9.99 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/20/16  
TIME W.L.: N/A

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE ft                                                                               |      |                |                          | SAMPLES    |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM AND NOTES                                   | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|-------------------|-----------------------------------------------------------------------------------------------|------|----------------|--------------------------|------------|------|----------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                   | USCS | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft)   | SAMPLE NO. | TYPE | REC            |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0             | 740               | 0.00 - 10.00<br>No recovery; Hydrovac                                                         |      |                |                          |            |      |                |   | <b>WELL CASING</b><br>Interval: 0.0'-36.0'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br><b>WELL SCREEN</b><br>Interval: 36.0'-46.0'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br>End Cap: Schedule 40 PVC<br><br><b>FILTER PACK</b><br>Interval: 34.0'-46.0'<br>Type: #1 Type Sand<br><br><b>FILTER PACK SEAL</b><br>Interval: 31.0'-34.0'<br>Type: Bentonite Pellets and Chips<br><br><b>ANNULUS SEAL</b><br>Interval: 0.0'-31.0'<br>Type: Portland Type 1<br><br><b>WELL COMPLETION</b><br>Pad: 4'x4'x4"<br>Protective Casing: Aluminum<br><br><b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic |
| 5             | 735               |                                                                                               |      |                |                          |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10            | 730               | 10.00 - 11.00<br>silty SAND, ash in core sample possibly recovered from hydrovac zone above   | SM   |                | 730.90<br>10.00<br>29.90 |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 11.00 - 14.00<br>CLAY, dark reddish brown, cohesive, moist                                    | CH   |                | 11.00                    |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 15            | 725               | 14.00 - 17.00<br>SAND, fine sand, mottled brown and grey, moist, loose                        | SP   |                | 726.90<br>14.00          | 1          |      | 7.00<br>7.00   |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 17.00 - 27.00<br>fine sand, mottled brown and grey, relict laminations, moist, loose          |      |                | 723.90<br>17.00          |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 20            | 720               |                                                                                               |      |                |                          | 2          |      | 10.00<br>10.00 |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 25            | 715               |                                                                                               |      |                | 713.90                   |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 30            | 710               | 27.00 - 30.00<br>silty SAND, dull grey to brown, moist, loose                                 | SM   |                | 27.00                    |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 30.00 - 32.00<br>mottled brown to tan, lamination, dry to moist, loose                        |      |                | 710.90<br>30.00          |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 32.00 - 37.00<br>mottled brown to tan, lamination, micaceous, dry to moist, loose             |      |                | 708.90<br>32.00          | 3          |      | 5.00<br>10.00  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 35            | 705               |                                                                                               |      |                | 703.90                   |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 37.00 - 42.00<br>grey, dry, loose                                                             |      |                | 37.00                    |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 40            | 700               |                                                                                               |      |                | 698.90                   | 4          |      | 4.00<br>10.00  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | 42.00 - 47.00<br>transitionally weathered rock - biotite/muscovite GNEISS, weathered, friable | PWR  |                | 42.00                    |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 45            | 695               |                                                                                               |      |                | 693.90                   |            |      |                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|               |                   | Boring completed at 47.10 ft                                                                  |      |                | 47.00                    |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 50            |                   |                                                                                               |      |                |                          |            |      |                |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



# RECORD OF BOREHOLE PZ-37

SHEET 1 of 1

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 47.00 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 6/29/16  
DATE COMPLETED: 7/6/16

NORTHING: 1,256,471.14  
EASTING: 2,074,699.59  
GS ELEVATION: 758.0  
TOC ELEVATION: 760.78

DEPTH W.L.: 6.0 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/6/2016  
TIME W.L.: 07:40

BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE ft                                                                                                                                             |        |                                                                                     |                        | SAMPLES    |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                   |
|---------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|------------------------|------------|------|----------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                                                                 | USCS   | GRAPHIC LOG                                                                         | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC            |                                                     |                                                                                                                                                                   |
| 0             |                   | 0.00 - 3.00<br>silty CLAY, red to brown, micaceous                                                                                                          | CL-ML  |    | 755.00                 |            |      |                | Portland<br>Type 1                                  | <b>WELL CASING</b><br>Interval: 0.0'-36'<br>Material: Schedule 40 PVC<br>Diameter: 2<br>Joint Type: Threaded                                                      |
| 755           |                   | 3.00 - 5.00<br>silty SAND, trace gravel, pale grey to green, plagioclase nodules (saprolite)                                                                | SM     |    | 3.00                   | 1          |      | 7.00<br>7.00   |                                                     | <b>WELL SCREEN</b><br>Interval: 36.5'-46.5'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2<br>Slot Size: 0.010" Slotted<br>Screen<br>End Cap: Schedule 40 PVC |
| 5             |                   | 5.00 - 7.00<br>trace clay, white and orange nodules, plagioclase, dry (saprolite)                                                                           |        |    | 5.00                   |            |      |                |                                                     |                                                                                                                                                                   |
| 750           |                   | 7.00 - 9.50<br>trace gravel, white to dark brown, muscovite                                                                                                 |        |    | 7.00                   |            |      |                |                                                     |                                                                                                                                                                   |
| 10            |                   | 9.50 - 17.00<br>trace clay, pale yellow brown, plagioclase nodules, dry (saprolite)                                                                         |        |    | 9.50                   |            |      |                |                                                     | <b>FILTER PACK</b><br>Interval: 33.0'-47.0'<br>Type: #1 Type Sand                                                                                                 |
| 745           |                   |                                                                                                                                                             |        |                                                                                     | 749.00                 | 2          |      | 10.00<br>10.00 | Bentonite<br>Pellets and<br>Chips                   | <b>FILTER PACK SEAL</b><br>Interval: 25.0'-33.0'<br>Type: Bentonite Pellets and Chips                                                                             |
| 15            |                   |                                                                                                                                                             |        |                                                                                     | 741.00                 |            |      |                |                                                     | <b>ANNULUS SEAL</b><br>Interval: 0.0'-25.0'<br>Type: Portland Type 1                                                                                              |
| 740           |                   | 17.00 - 27.00<br>pale yellow brown to brown, white and brown nodules, saprolitic gneiss, dry                                                                |        |    | 17.00                  |            |      |                |                                                     | <b>WELL COMPLETION</b><br>Pad: 4"x4"x4"<br>Protective Casing: Aluminum                                                                                            |
| 20            |                   |                                                                                                                                                             |        |                                                                                     |                        | 3          |      | 10.00<br>10.00 |                                                     | <b>DRILLING METHODS</b><br>Soil Drill: 4" Sonic<br>Rock Drill: 4" Sonic                                                                                           |
| 735           |                   |                                                                                                                                                             |        |                                                                                     | 731.00                 |            |      |                |                                                     |                                                                                                                                                                   |
| 25            |                   |                                                                                                                                                             |        |                                                                                     |                        |            |      |                | 0.010"<br>Slotted<br>Screen                         |                                                                                                                                                                   |
| 730           |                   | 27.00 - 37.00<br>transitionally weathered rock- feldspathic GNEISS, muscovite, biotite, feldspar, quartz, foliated and layered, dark green, amphibole lense | PWR    |  | 27.00                  | 4          |      | 10.00<br>10.00 |                                                     |                                                                                                                                                                   |
| 725           |                   |                                                                                                                                                             |        |                                                                                     |                        |            |      |                |                                                     |                                                                                                                                                                   |
| 35            |                   |                                                                                                                                                             |        |                                                                                     | 721.00                 |            |      |                |                                                     |                                                                                                                                                                   |
| 720           |                   | 37.00 - 43.00<br>bedrock - feldspathic GNEISS, biotite, muscovite, quartz, plagioclase, grey to white, more feldspar and quartz, oxidized and fractured     | GNEISS |  | 37.00                  | 5          |      | 8.00<br>10.00  |                                                     |                                                                                                                                                                   |
| 715           |                   | 43.00 - 47.00<br>more granitic, lots of feldspar and quartz                                                                                                 |        |  | 43.00                  |            |      |                | #1 Type<br>Sand                                     |                                                                                                                                                                   |
| 710           |                   | Boring completed at 47.00 ft                                                                                                                                |        |                                                                                     | 711.00                 |            |      |                | Sump                                                |                                                                                                                                                                   |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Tom Ardito

GA INSPECTOR: Tim Richards  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17





# Boring Log/Well Construction Log

Sheet: 1 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Logger: Grant Willford  
Date Completed: 04/16/2021 Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log | PID (ppm) | Graphic Log | Description                                                                                                                                                                                                                                                | Construction Details | Well |
|--------------|-----------------|-------------|----------------|-----------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------|
| 0            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 1            |                 |             |                |           |           |             | Sandy clay (CL); 2.5YR 5/8; some silt; little very fine grained to fine grained sand; angular to sub angular; low plasticity; dry.                                                                                                                         |                      |      |
| 2            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 3            |                 |             |                |           |           |             | Silty sand (SM); 2.5Y 8/3 (pale brown) with some 2.5Y 7/1 (light gray); very fine grained to medium grained sand; angular to sub angular; little silt; trace clay; trace granules; angular; granules composed of quartz; micaceous; dry.                   |                      |      |
| 4            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 5            |                 |             | 120            |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 6            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 7            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 8            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 9            |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 10           |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 11           |                 |             |                |           |           |             | Silty sand (SM); 2.5Y 6/4 (light yellowish brown) with 2.5Y 7/1 (light gray) and GLEY1 10GY 5/1 (greenish gray) mottled through out; very fine grained to fine grained sand; angular to sub angular; some silt; little clay; micaceous; saprolitic; moist. |                      |      |
| 12           |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 13           |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 14           |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 15           |                 |             | 120            |           |           |             |                                                                                                                                                                                                                                                            |                      |      |
| 16           |                 |             |                |           |           |             |                                                                                                                                                                                                                                                            |                      |      |

Drilling Co.: Cascade  
Driller: David Wilcox  
Drilling Method: Rotosonic  
Drilling Fluid: Water  
Remarks: ' / ft = feet; " / in = inch; bgs = below ground surface;  
NA = not applicable / available.

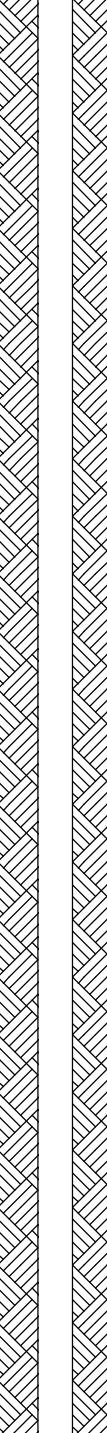
Sampling Method: Core Barrel  
Sampling Interval: Continuous  
Water Level Start (ft. bgs.):   
Water Level Finish (ft. btoc.): 5.98  
Converted to Well: ☒ Yes ☐ No  
Surface Elev.: 758.8  
North Coord: 1256478.32  
East Coord: 2074688.08

# Boring Log/Well Construction Log

Sheet: 2 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Logger: Grant Willford  
Date Completed: 04/16/2021 Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log | Description                                                                                                                                                                                                                                                                                                                                             | Construction Details                                                                           | Well                                                                                 |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 17           |                 |             |                |    |           |             | Well-graded sand (SW); 2.5Y 8/1 (white); very fine grained to very coarse grained sand; trace gravel; gravel composed of quartz.                                                                                                                                                                                                                        | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |  |
| 18           |                 |             |                |                                                                                     |           |             | Silty sand (SM); 2.5Y 6/4 (light yellowish brown) with 2.5Y 7/1 (light gray) and GLEY1 10GY 5/1 (greenish gray) mottled through out; very fine grained to fine grained sand; angular to sub angular; some silt; little clay; micaceous; saprolitic; moist.                                                                                              |                                                                                                |                                                                                      |
| 19           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 20           |                 |             |                |    |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 21           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 22           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 23           |                 |             |                |   |           |             | Pulverized rock composed of quartz.                                                                                                                                                                                                                                                                                                                     |                                                                                                |                                                                                      |
| 24           |                 |             |                |                                                                                     |           |             | Gneiss (Partially Weathered Rock); black, white and some greenish gray mineral grains; fine grained to very coarse mineral grains; gneissic rock texture; strong to very strong rock strength; partially weathered; rock cobbles range from 0.2 to 0.4 ft in length; some dark red staining on majority of rock cobbles; some pyrite crystals observed. |                                                                                                |                                                                                      |
| 25           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 26           |                 |             |                |  |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 27           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 28           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 29           |                 |             |                |  |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 30           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 31           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 32           |                 |             |                |  |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 33           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 34           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
| 35           |                 |             |                |  |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
|              |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |
|              |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                |                                                                                      |

Remarks: \_\_\_\_\_

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\_\_\_\_\_

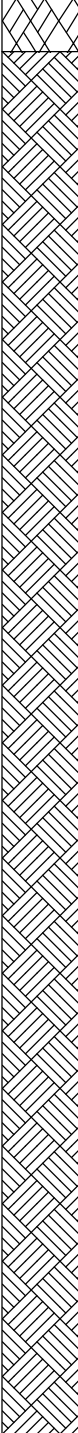
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# Boring Log/Well Construction Log

Sheet: 3 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Date Completed: 04/16/2021  
Logger: Grant Willford Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log                                                                        | Description                                                                                                                                                                                                                                                                                                              | Construction Details                                                                           | Well                                                                                 |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 36           |                 |             |                |   |           |  | Gneiss (Bedrock); black and white with little greenish gray minerals grains; very fine grained to very coarse grained mineral grains; gneissic rock texture; very strong rock strength; fresh rock; trace partially weathered rock cobbles; little to trace red staining on rock cobbles; some pyrite crystals observed. |                                                                                                |  |
| 37           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 38           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 39           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 40           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 41           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 42           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 43           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 44           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 45           |                 |             | 96             |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 46           |                 |             |                |  |           |                                                                                    | Trace red staining on rock cobbles                                                                                                                                                                                                                                                                                       | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |  |
| 47           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 48           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 49           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 50           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 51           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 52           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 53           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |
| 54           |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                                      |

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# Boring Log/Well Construction Log

Sheet: 4 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Date Completed: 04/16/2021  
Logger: Grant Willford Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log | Description                                                                                                                                                                                                                                                                                                              | Construction Details                                                                           | Well |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------|
| 55           |                 |             | 120            |   |           |             | Gneiss (Bedrock); black and white with little greenish gray minerals grains; very fine grained to very coarse grained mineral grains; gneissic rock texture; very strong rock strength; fresh rock; trace partially weathered rock cobbles; little to trace red staining on rock cobbles; some pyrite crystals observed. |                                                                                                |      |
| 56           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 57           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 58           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 59           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 60           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 61           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 62           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 63           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 64           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 65           |                 |             | 108            |  |           |             | Gneiss (Partially Weathered Rock); same composition as described above; partially weathered zone.                                                                                                                                                                                                                        | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |      |
| 66           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 67           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 68           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 69           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 70           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 71           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 72           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
| 73           |                 |             |                |                                                                                     |           |             |                                                                                                                                                                                                                                                                                                                          |                                                                                                |      |
|              |                 |             |                |                                                                                     |           |             | Gneiss (Bedrock); same composition as described above; trace to no staining on rock cobbles.                                                                                                                                                                                                                             |                                                                                                |      |

Remarks: \_\_\_\_\_

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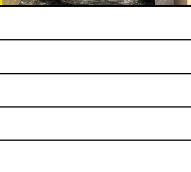
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# Boring Log/Well Construction Log

Sheet: 5 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021      Date Completed: 04/16/2021  
Logger: Grant Willford      Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log | Description                                                                                                                              | Construction Details                                                                           | Well |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------|
| 75           |                 |             | 108            |    |           |             | Gneiss (Bedrock); same composition as described above; trace to no staining on rock cobbles.                                             | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |      |
| 76           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 77           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 78           |                 |             |                |                                                                                     |           |             | 78.0-79.0 ft bgs; some staining on rock pieces.                                                                                          |                                                                                                |      |
| 79           |                 |             |                |   |           |             | Gneiss (Partially Weathered Rock); same composition as described above; partially weathered zone; abundant red staining on rock cobbles. |                                                                                                |      |
| 80           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 81           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 82           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 83           |                 |             |                |  |           |             | Gneiss (Bedrock); same composition as described above; trace to no red staining on rock cobbles.                                         |                                                                                                |      |
| 84           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 85           |                 |             | 104            |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 86           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 87           |                 |             |                |  |           |             | Gneiss (Partially Weathered Rock); same composition as described above; partially weathered zone.                                        |                                                                                                |      |
| 88           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 89           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 90           |                 |             |                |                                                                                     |           |             | Gneiss (Bedrock); same composition as described above; trace red staining on rock cobbles.                                               |                                                                                                |      |
| 91           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 92           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |
| 93           |                 |             |                |                                                                                     |           |             |                                                                                                                                          |                                                                                                |      |

Remarks: \_\_\_\_\_

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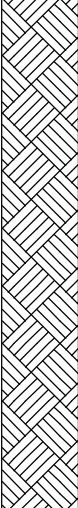
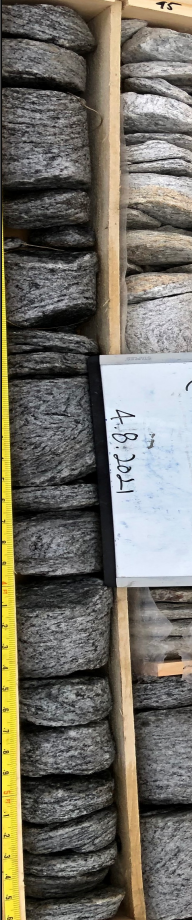
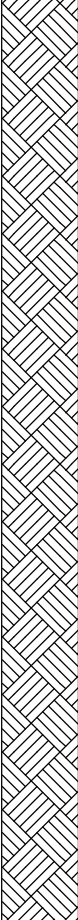
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# Boring Log/Well Construction Log

Sheet: 6 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Logger: Grant Willford  
Date Completed: 04/16/2021 Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                          | PID (ppm) | Graphic Log                                                                        | Description                                                                                | Construction Details                                                                           | Well                                                                                 |
|--------------|-----------------|-------------|----------------|------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 94           |                 |             | 102            |   |           |   | Gneiss (Bedrock); same composition as described above; trace red staining on rock cobbles. |                                                                                                |   |
| 95           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 96           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 97           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 98           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 99           |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 100          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 101          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 102          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 103          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 104          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 105          |                 |             | 108            |  |           |  |                                                                                            | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |  |
| 106          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 107          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 108          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 109          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 110          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 111          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |
| 112          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                            |                                                                                                |                                                                                      |

Remarks: \_\_\_\_\_  
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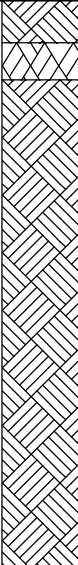
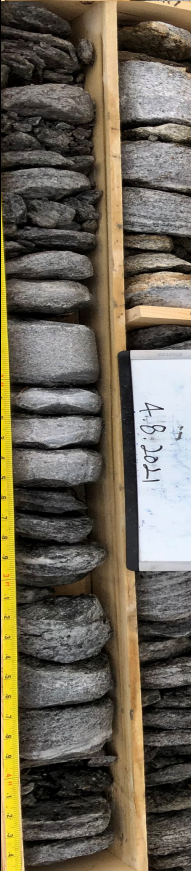
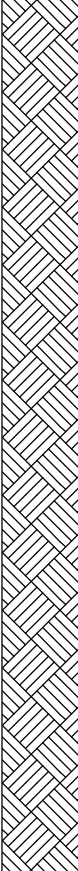


# Boring Log/Well Construction Log

Sheet: 7 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Date Completed: 04/16/2021  
Logger: Grant Willford Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                          | PID (ppm) | Graphic Log                                                                        | Description                                                                                                      | Construction Details                                                                           | Well                                                                                 |
|--------------|-----------------|-------------|----------------|------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 113          |                 |             | 108            |   |           |   | Gneiss (Partially Weathered Rock); same composition as described above; partially weathered zone.                |                                                                                                |   |
| 114          |                 |             |                |                                                                                    |           |                                                                                    | Gneiss (Bedrock); same composition as described above; little to trace red-orangish red staining on rock cobbles |                                                                                                |                                                                                      |
| 115          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 116          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 117          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 118          |                 |             | 96             |  |           |  | 117.0-120.0 ft bgs; some red staining on fracture surfaces.                                                      | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |  |
| 119          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 120          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 121          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 122          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 123          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 124          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 125          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 126          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 127          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 128          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 129          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 130          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |
| 131          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                      |

Remarks:

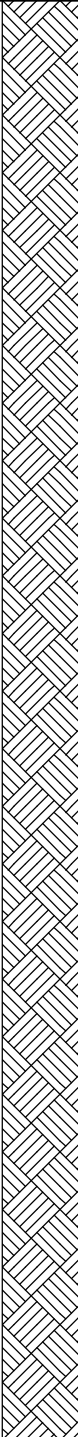
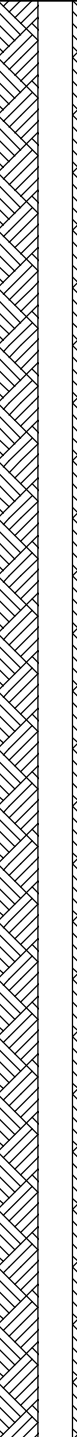
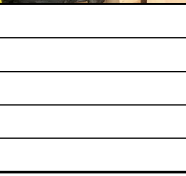
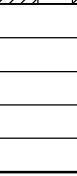


# Boring Log/Well Construction Log

Sheet: 8 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Logger: Grant Willford  
Date Completed: 04/16/2021 Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log                                                                        | Description                                                                                                      | Construction Details                                                                           | Well                                                                                  |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 132          |                 |             | 42             |    |           |  | Gneiss (Bedrock); same composition as described above; little to trace red-orangish red staining on rock cobbles |                                                                                                |   |
| 133          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 134          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 135          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 136          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 137          |                 |             | 54             |   |           |                                                                                    |                                                                                                                  | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |   |
| 138          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 139          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 140          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 141          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 142          |                 |             |                |  |           |                                                                                    |                                                                                                                  |                                                                                                |  |
| 143          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 144          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 145          |                 |             | 102            |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 146          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 147          |                 |             |                |  |           |                                                                                    |                                                                                                                  |                                                                                                |  |
| 148          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 149          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 150          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |
| 151          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                  |                                                                                                |                                                                                       |

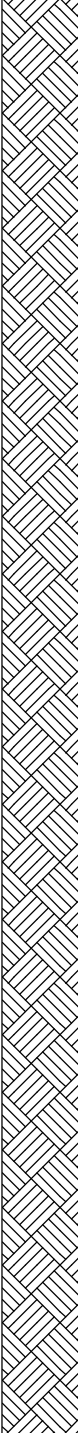
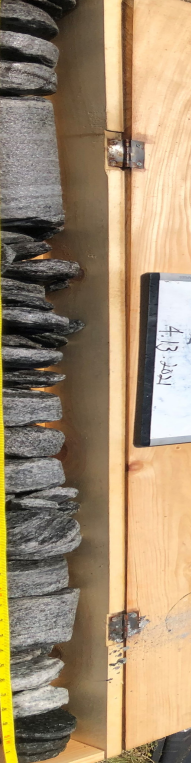
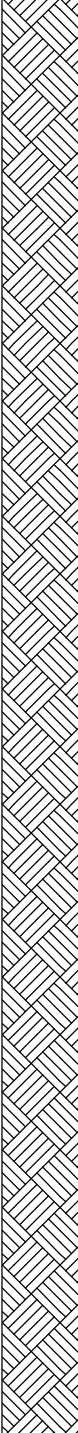
Remarks: \_\_\_\_\_  
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# Boring Log/Well Construction Log

Sheet: 9 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Logger: Grant Willford  
Date Completed: 04/16/2021 Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log                                                                        | Description                                                                                                                     | Construction Details                                                                           | Well |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------|
| 152          |                 |             | 102            |   |           |  | Gneiss (Bedrock); same composition as described above; little to trace red-orangish red staining on rock cobbles                |                                                                                                |      |
| 153          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 154          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 155          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 156          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 157          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 158          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 159          |                 |             | 96             |  |           |  | 158.0 ft bgs; began observing 5-10% very fine grained garnets in rock matrix; trace porphyblast garnets 0.5 inches in diameter. | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |      |
| 160          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 161          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 162          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 163          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 164          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 165          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 166          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 167          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 168          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 169          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |
| 170          |                 |             |                |                                                                                     |           |                                                                                    |                                                                                                                                 |                                                                                                |      |

Remarks: \_\_\_\_\_

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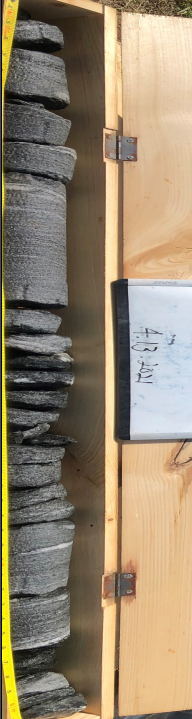
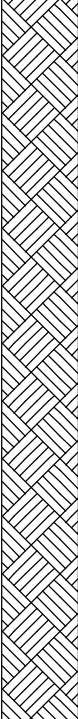
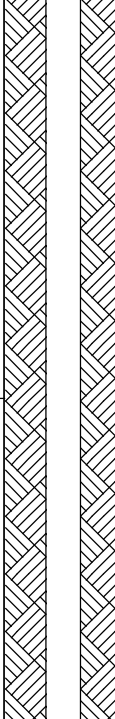
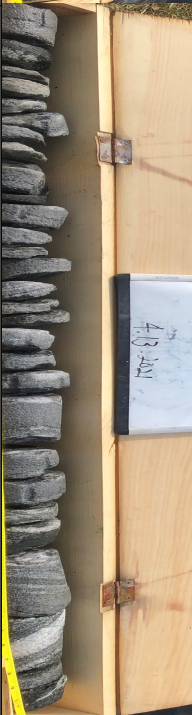
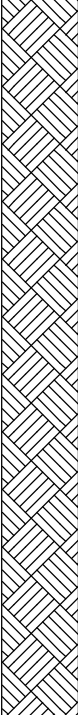
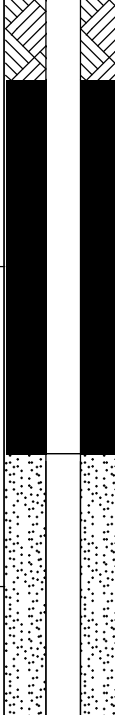
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# Boring Log/Well Construction Log

Sheet: 10 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Date Completed: 04/16/2021  
Logger: Grant Willford Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                           | PID (ppm) | Graphic Log                                                                         | Description                                                                                                      | Construction Details                                                                           | Well                                                                                  |
|--------------|-----------------|-------------|----------------|-------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 171          |                 |             | 120            |   |           |   | Gniess (Bedrock); same composition as described above; little to trace red-orangish red staining on rock cobbles | 30% solids bentonite grout (AQUAGUARD) 3-in. outer dia. with 2-in inner dia. Sch 40 PVC riser. |   |
| 172          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 173          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 174          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 175          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 176          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 177          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 178          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 179          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 180          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 181          |                 |             | 120            |  |           |  |                                                                                                                  | Bentonite seal (Pel-Plug 3/8-inch pellets).                                                    |  |
| 182          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 183          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 184          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 185          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 186          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 187          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 188          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |
| 189          |                 |             |                |                                                                                     |           |                                                                                     |                                                                                                                  |                                                                                                |                                                                                       |

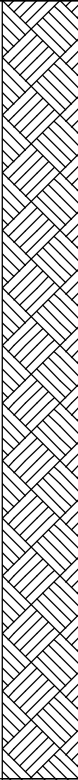
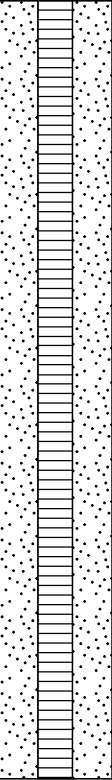
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

# Boring Log/Well Construction Log

Sheet: 11 of 11

Project Name: Plant Yates  
Project Number: 30086734  
Project Location: Newnan, GA

Date Started: 04/05/2021 Date Completed: 04/16/2021  
Logger: Grant Willford Editor: Grant Willford  
Weather Conditions: -

| Depth (feet) | Sample Interval | Blow Counts | Recovery (in.) | Photo Log                                                                          | PID (ppm) | Graphic Log                                                                        | Description                                                                                                      | Construction Details                                                                         | Well                                                                                 |
|--------------|-----------------|-------------|----------------|------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 190          |                 |             |                |  |           |  | Gneiss (Bedrock); same composition as described above; little to trace red-orangish red staining on rock cobbles | 3-inch outer dia. with 2 inch inner dia U-Pack Sch. 40 PVC, 0.010-in slot; 16-40 filter pack |  |
| 191          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 192          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 193          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 194          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 195          |                 |             | 114            |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 196          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 197          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 198          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 199          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 200          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 201          |                 |             |                |                                                                                    |           |                                                                                    | End of boring 200.0 ft bgs.                                                                                      |                                                                                              |                                                                                      |
| 202          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 203          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 204          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 205          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 206          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 207          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
| 208          |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |
|              |                 |             |                |                                                                                    |           |                                                                                    |                                                                                                                  |                                                                                              |                                                                                      |

Remarks: \_\_\_\_\_

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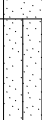
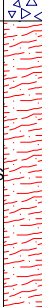
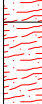


PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 56.10 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/11/16  
DATE COMPLETED: 7/12/16

NORTHING: 1,259,868.04  
EASTING: 2,074,528.00  
GS ELEVATION: 777.2  
TOC ELEVATION: 779.83 ft

DEPTH W.L.: 17.71 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/13/2016  
TIME W.L.: 15:25

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                                                              |        |                                                                                     | SAMPLES         |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|-----------------|------|----------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                                                               | USCS   | GRAPHIC<br>LOG                                                                      | ELEV.           | TYPE | REC            |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|               |                   |                                                                                                                           |        |                                                                                     | DEPTH<br>(ft)   |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 0             |                   | 0.00 - 10.00<br>No recovery; hydrovac                                                                                     |        |                                                                                     |                 |      |                |                                                     | <div>WELL CASING<br/>Interval: 0.0'-45.8'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</div> <div>WELL SCREEN<br/>Interval: 45.8'-55.8'<br/>Material: U-Pack Schedule 40<br/>PVC<br/>Diameter: 2"<br/>Slot Size: 0.010'<br/>End Cap: Schedule 40 PVC</div> <div>FILTER PACK<br/>Interval: 43.1'-56.1'<br/>Type: #1 Type Sand</div> <div>FILTER PACK SEAL<br/>Interval: 38.5'-43.1'<br/>Type: Bentonite Pellets and<br/>Chips</div> <div>ANNULUS SEAL<br/>Interval: 0.0'-38.5'<br/>Type: Portland Type 1</div> <div>WELL COMPLETION<br/>Pad: 4"x4"x4"<br/>Protective Casing: Aluminum</div> <div>DRILLING METHODS<br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</div> |
| 775           |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5             |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 770           |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10            |                   | 10.00 - 12.00<br>clayey SAND, coarse sand, dark red, cohesive                                                             | SC     |    | 767.20<br>10.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 765           |                   | 12.00 - 14.00<br>sandy SILT to silty SAND, pinkish orange                                                                 | SP-ML  |    | 765.20<br>12.00 | 1    | 6.00<br>6.00   |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 15            |                   | 14.00 - 16.00<br>sandy SILT, reddish brown, moist loose                                                                   | ML     |    | 763.20<br>14.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 760           |                   | 16.00 - 22.00<br>sandy SILT to silty SAND, dark reddish brown, trace gravel, dry, loose                                   | SP-ML  |   | 761.20<br>16.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 20            |                   |                                                                                                                           |        |                                                                                     |                 | 2    | 10.00<br>10.00 |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 755           |                   | 22.00 - 26.00<br>silty SAND, mottled white and grey, high plagioclase content                                             | SM     |  | 755.20<br>22.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 25            |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 750           |                   | 26.00 - 32.00<br>poorly sorted, greyish brown, dry, loose                                                                 |        |  | 751.20<br>26.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 30            |                   |                                                                                                                           |        |                                                                                     |                 | 3    | 10.00<br>10.00 |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 745           |                   | 32.00 - 36.00<br>transitionally weathered rock, pegmatite GRANITE, highly weathered, large plagioclase and quartz crytals | PWR    |  | 745.12<br>32.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 35            |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 740           |                   | 36.00 - 46.00<br>biotite GNEISS, some staining near top of core, pyrite inclusions                                        |        |  | 741.20<br>36.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 40            |                   |                                                                                                                           |        |                                                                                     |                 | 4    | 10.00<br>10.00 |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 735           |                   |                                                                                                                           | GNEISS |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 45            |                   |                                                                                                                           |        |                                                                                     |                 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 730           |                   | 46.00 - 49.00<br>biotite GNEISS                                                                                           |        |  | 731.20<br>46.00 | 5    | 10.00<br>10.00 |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 50            |                   |                                                                                                                           |        |                                                                                     | 728.20<br>49.00 |      |                |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Log continued on next page

Portland  
Type 1

Bentonite  
Pellets and –  
Chips

0.010"  
Slotted –  
Screen

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17



BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

# RECORD OF BOREHOLE YGWC-48/ PZ-48

SHEET 2 of 2

PROJECT: SCS Plant Yates  
PROJECT NUMBER: 1660300  
DRILLED DEPTH: 56.10 ft  
LOCATION: Newnan, GA

DRILL RIG: Sonic PS-150  
DATE STARTED: 7/11/16  
DATE COMPLETED: 7/12/16

NORTHING: 1,259,868.04  
EASTING: 2,074,528.00  
GS ELEVATION: 777.2  
TOC ELEVATION: 779.83 ft

DEPTH W.L.: 17.71 ft (bgs)  
ELEVATION W.L.: (amsl)  
DATE W.L.: 7/13/2016  
TIME W.L.: 15:25

| DEPTH<br>(ft) | ELEVATION<br>(ft) | SOIL PROFILE                                                                             |      |                |                        | SAMPLES    |      |                | MONITORING WELL/<br>PIEZOMETER<br>DIAGRAM and NOTES  | WELL<br>CONSTRUCTION<br>DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------|------------------------------------------------------------------------------------------|------|----------------|------------------------|------------|------|----------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                   | DESCRIPTION                                                                              | USCS | GRAPHIC<br>LOG | ELEV.<br>DEPTH<br>(ft) | SAMPLE NO. | TYPE | REC            |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 50            |                   | 49.00 - 52.00<br>biotite GNEISS, migmatic gneiss bands with iron staining<br>(Continued) |      |                | 725.20                 |            |      |                | <div> <div>#1 Type Sand</div> <div>Sump</div> </div> | <p><b>WELL CASING</b><br/>Interval: 0.0'-45.8'<br/>Material: Schedule 40 PVC<br/>Diameter: 2"<br/>Joint Type: Threaded</p> <p><b>WELL SCREEN</b><br/>Interval: 45.8'-55.8'<br/>Material: U-Pack Schedule 40 PVC<br/>Diameter: 2"<br/>Slot Size: 0.010'<br/>End Cap: Schedule 40 PVC</p> <p><b>FILTER PACK</b><br/>Interval: 43.1'-56.1'<br/>Type: #1 Type Sand</p> <p><b>FILTER PACK SEAL</b><br/>Interval: 38.5'-43.1'<br/>Type: Bentonite Pellets and Chips</p> <p><b>ANNULUS SEAL</b><br/>Interval: 0.0'38.5'<br/>Type: Portland Type 1</p> <p><b>WELL COMPLETION</b><br/>Pad: 4'x4'x4"<br/>Protective Casing: Aluminum</p> <p><b>DRILLING METHODS</b><br/>Soil Drill: 4" Sonic<br/>Rock Drill: 4" Sonic</p> |
| 725           |                   | 52.00 - 56.00<br>biotite GNEISS                                                          |      |                | 52.00                  | 5          |      | 10.00<br>10.00 |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 55            |                   |                                                                                          |      |                | 721.20                 |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 720           |                   | Boring completed at 56.10 ft                                                             |      |                | 56.00                  |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 60            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 715           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 65            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 710           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 70            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 705           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 75            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 700           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 80            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 695           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 85            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 690           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 90            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 685           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 95            |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 680           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 100           |                   |                                                                                          |      |                |                        |            |      |                |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

LOG SCALE: 1 in = 6.5 ft  
DRILLING COMPANY: Cascade Drilling  
DRILLER: Dale

GA INSPECTOR: Ben Hodges  
CHECKED BY: Rachel Kirkman, PG  
DATE: 9/29/17

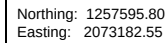


BOREHOLE RECORD YATES BORING LOGS.GPJ PIEDMONT.GDT 9/26/17

Acc

BORING ID

|                |                 |
|----------------|-----------------|
| PROJECT NO.:   | 1054-110        |
| SITE LOCATION: | Newnan, Georgia |
| DRILLER:       | Isaac Young     |
| RIG TYPE:      | T-300 Rotosonic |
| METHOD:        | Rotosonic       |



4"x4" Aluminum Protective Casing  
4'x4'x4" Concrete Pad  
Weather Resistant Lock  
Survey Pin

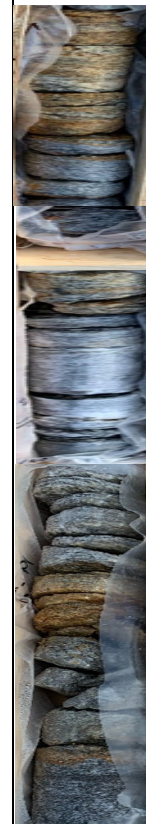
|                                       |
|---------------------------------------|
| 0-4' Hydrovac. No observable cuttings |
|---------------------------------------|

4-9' Hard rock. Gneissic banding/schist. Moderately weathered to competent. Some iron staining present (5/5)

9-16' As above except very competent rock. No iron staining. Very hard drilling (5/7)

16-19' As above except rock now slightly weathered and some iron staining present (2/3)

19-29' As above except now more iron staining present (6/10)



|                   |                                                                                     |                        |
|-------------------|-------------------------------------------------------------------------------------|------------------------|
| GROUT:            |  | Bentonite Grout        |
| MANUFACTURER:     |                                                                                     | AquaGuard              |
| BENTONITE SEAL:   |  | 3/8" Bentonite Pellets |
| MANUFACTURER:     |                                                                                     | Pel-Plug               |
| FILTER PACK SAND: |  | 20/30 Mesh             |
| MANUFACTURER:     |                                                                                     | Filter Media           |
| WELL SCREEN:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |
| SLOT SIZE:        |                                                                                     | 0.010-inch Slot        |
| WELL CASING:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |

|                                             |
|---------------------------------------------|
| BTOC - Below Top of Casing                  |
| ID - Inside Diameter; OD - Outside Diameter |
| MSL - Mean Sea Level                        |
| BGS - Below Ground Surface                  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <br>ATLANTIC COAST CONSULTING, INC.                                                                                                                                                                                                                                                                                                                                                                                                                |  | <b>PZ-51</b><br>BORING ID                                                                                                                                                                                                                                                             |  |
| <b>PROJECT:</b> Plant Yates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <b>PROJECT NO.:</b> 1054-110                                                                                                                                                                                                                                                          |  |
| <b>TOTAL DEPTH:</b> 36.69 ft. BTOC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <b>SITE LOCATION:</b> Newnan, Georgia                                                                                                                                                                                                                                                 |  |
| <b>DATE BEGIN:</b> 7-Nov-2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>DRILLER:</b> Isaac Young                                                                                                                                                                                                                                                           |  |
| <b>DATE COMPLETE:</b> 8-Nov-2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>RIG TYPE:</b> T-300 Rotosonic                                                                                                                                                                                                                                                      |  |
| <b>INSTALLED BY:</b> Cascade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | <b>METHOD:</b> Rotosonic                                                                                                                                                                                                                                                              |  |
| <b>SUPERVISED BY:</b> Ryan Walker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                       |  |
| <b>WATER 1ST ENCOUNTERED:</b> 7' BGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                       |  |
| <b>WATER AFTER 48 HOURS:</b> 6.27' BGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                       |  |
| <div><div><div>Elevation<br/>MSL</div><div>28</div><div>29</div><div>30</div><div>31</div><div>32</div><div>707.98</div><div>Elevation</div><div>33.32</div><div>Depth</div><div>34</div><div>35</div><div>36</div><div>37</div><div>38</div><div>39</div><div>40</div><div>41</div><div>42</div><div>43</div><div>44</div><div>45</div><div>46</div><div>47</div><div>48</div><div>49</div><div>50</div><div>51</div><div>52</div></div><div><div>Bottom of Screen</div><div>Silt Trap (0.3')</div><div>6.00" OD</div></div></div> |  | <div>29-33' As above except rock now very competent. No iron staining present. Very hard drilling (4/4)</div> <div>Total well depth 33.62' BGS</div> <div><div>Core Photos</div></div>             |  |
| <b>MATERIALS:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                       |  |
| <div><div>GROUT:</div><div>MANUFACTURER:</div><div>BENTONITE SEAL:</div><div>MANUFACTURER:</div><div>FILTER PACK SAND:</div><div>MANUFACTURER:</div><div>WELL SCREEN:</div><div>MANUFACTURER:</div><div>SLOT SIZE:</div><div>WELL CASING:</div><div>MANUFACTURER:</div></div>                                                                                                                                                                                                                                                       |  | <div><div>Bentonite Grout</div><div>AquaGuard</div><div>3/8" Bentonite Pellets</div><div>Pei-Plug</div><div>20/30 Mesh</div><div>Filter Media</div><div>Sch. 40 - 2" PVC</div><div>Silver-Line</div><div>0.010-Inch Slot</div><div>Sch. 40 - 2" PVC</div><div>Silver-Line</div></div> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <div><div>TOC - Top of Casing</div><div>ID - Inside Diameter; OD - Outside Diameter</div><div>MSL - Mean Sea Level</div><div>BGS - Below Ground Surface</div></div>                                                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Page 2 of 2                                                                                                                                                                                                                                                                           |  |

# Soil Boring and Construction Log

Sheet: 1 of 7

Client Name: Southern Company Services

Date Started: 08-18-2021

Logger: Auguste Parrinello

Project Number: 30055278

Date Completed: 09-28-2021

Reviewer: Geoffrey Gay

Project Name: GPC Yates Drilling Oversight

Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                                                                                                       | Drilling Fluid and Notes                     | Optical Viewer | Construction Details          |                                     |                                                 |
|--------------|-----------|-----------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------|-------------------------------|-------------------------------------|-------------------------------------------------|
| 1            |           | 5         |           |         | (0-17 ft) SAND, fine to coarse, subangular; some silt; trace clay; poorly sorted; moist; loose; 7.5YR 6/6 - reddish yellow; no odor; blocky structure; saprolite.                                                                                                                                                                                                 | (0-5 ft) Hand Auger                          |                | 8" Borehole                   |                                     | 6.25" Surface Casing grouted in Portland cement |
| 2            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 3            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 4            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 5            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 6            |           | 5         |           |         | (17-20 ft) SAND, very fine to very coarse, subangular; little silt; little small to very large pebbles, angular; trace granules, angular; trace clay; poorly sorted; dry to moist; loose; 7.5YR 6/8 - reddish yellow; no odor; saprolite. NOTE: Pebbles are highly weathered. .                                                                                   | (5-55 ft) Drilled with water, Rough drilling | Y              |                               | Aquagard 30% solids bentonite grout |                                                 |
| 7            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 8            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 9            |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 10           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 11           |           | 5         |           |         | (20-22 ft) SAND and CLAY, medium, subangular, medium plasticity, rapid dilatancy; little silt; well sorted; moist; dense; 7.5YR 4/3 - brown; no odor; homogeneous structure; saprolite.                                                                                                                                                                           |                                              |                | 2" Sch. 40 PVC, PZ-52D Casing | 1" Sch. 40 PVC, PZ-53D Casing       |                                                 |
| 12           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 13           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 14           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 15           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 16           |           | 5         |           |         | (22-24 ft) SAND, very fine to very coarse, angular to subangular; some silt; little granules, angular to subangular; little clay; poorly sorted; dry; loose; 7.5YR 6/8 - reddish yellow; no odor; blocky structure; saprolite.                                                                                                                                    |                                              |                |                               |                                     |                                                 |
| 17           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 18           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 19           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 20           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 21           |           | 5         |           |         | (24-30 ft) SAND, medium to coarse, angular to subangular; little small to very large pebbles, angular to subangular; trace small to large cobbles, angular to subangular; trace silt; trace clay; poorly sorted; dry; loose; 10YR 8/2 - pale orange yellow; no odor; Saprolite/ weathered rock. NOTE: Clasts of mechanically broken weathered rock from drilling. |                                              |                |                               |                                     |                                                 |
| 22           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 23           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 24           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 25           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 26           |           | 2         |           |         | (24-30 ft) SAND, medium to coarse, angular to subangular; little small to very large pebbles, angular to subangular; trace small to large cobbles, angular to subangular; trace silt; trace clay; poorly sorted; dry; loose; 10YR 8/2 - pale orange yellow; no odor; Saprolite/ weathered rock. NOTE: Clasts of mechanically broken weathered rock from drilling. |                                              |                |                               |                                     |                                                 |
| 27           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 28           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 29           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |
| 30           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                                   |                                              |                |                               |                                     |                                                 |

Drilling Co.: Cascade

Driller: Cory Franklin, Mike Coleman

Drilling Method: Roto-Sonic

Drill Rig: Roto-Sonic

Remarks: Lithology modifiers: 'and' = 36-50% of total sample (by volume), 'some' = 21-35%, 'little' = 10-20%, and 'trace' = <10%.

Sampling Method: Sonic

Sampling Dimensions: Continuous

First Encountered Water (ft bgs): 5

Static Water Level (ft bgs): 5.91

Top of Casing Elev: 762.80

Surface Elev: 759.90

North Coord: 1256463.09

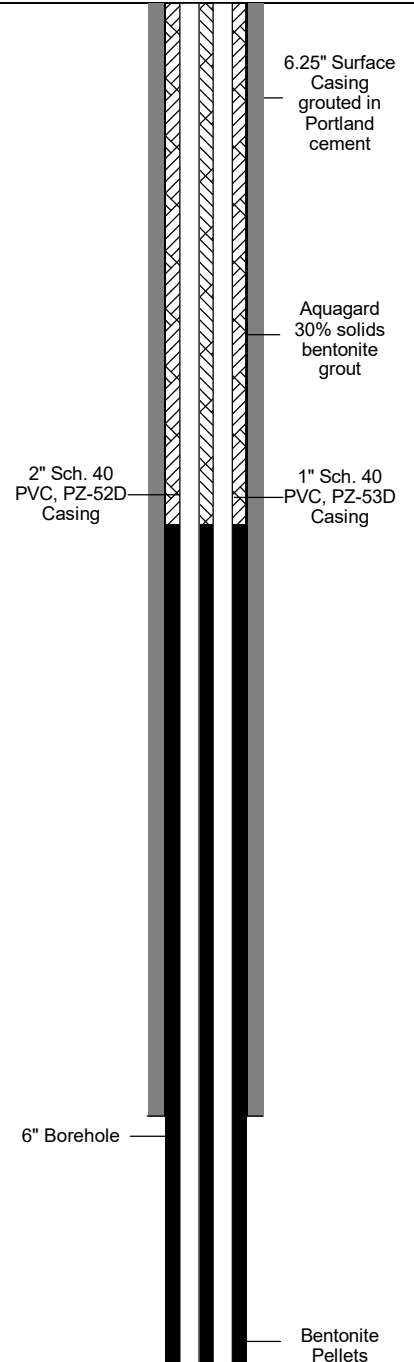
East Coord: 2074676.14

# Soil Boring and Construction Log

Sheet: 2 of 7

Client Name: Southern Company Services Date Started: 08-18-2021 Logger: Auguste Parrinello  
 Project Number: 30055278 Date Completed: 09-28-2021 Reviewer: Geoffrey Gay  
 Project Name: GPC Yates Drilling Oversight Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                                                          | Drilling Fluid and Notes                              | Optical Viewer | Construction Details |
|--------------|-----------|-----------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------|----------------------|
| 31           |           |           |           |         | (30-40 ft) Partially Weathered Rock, medium grained (0.25-0.5 mm) to coarse grained (0.5-2.0 mm), angular; White\orange\grey; 5Y 7/1 - light gray; highly weathered; medium hard (easily scratched by penknife); moderately fractured (0.1-0.3 m). NOTE: High m-f sand in cores accompanying broken rock fragments.. | (5-55 ft) Drilled with water, Rough drilling          |                |                      |
| 32           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 33           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 34           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 35           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 36           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 37           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 38           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 39           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 40           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 41           |           |           |           |         | (40-72 ft) Metamorphic Rock, medium grained (0.25-0.5 mm) to coarse grained (0.5-2.0 mm), angular; Grey/ white; fresh; very hard (cannot be scratched by penknife); moderately fractured (0.1-0.3 m); Chlorite, biotite, feldspars, quartz; pitted; Foliated Gneiss . NOTE: Micaceous, foliated.                     | (40-160 ft) Drilled with water, Drill rods chattering |                |                      |
| 42           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 43           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 44           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 45           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 46           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 47           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 48           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 49           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 50           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 51           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 52           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 53           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 54           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 55           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 56           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 57           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 58           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 59           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 60           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 61           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 62           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |
| 63           |           |           |           |         |                                                                                                                                                                                                                                                                                                                      |                                                       |                |                      |



Remarks: \_\_\_\_\_

# Soil Boring and Construction Log

Sheet: 3 of 7

Client Name: Southern Company Services Date Started: 08-18-2021 Logger: Auguste Parrinello  
Project Number: 30055278 Date Completed: 09-28-2021 Reviewer: Geoffrey Gay  
Project Name: GPC Yates Drilling Oversight Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                                                                                               | Drilling Fluid and Notes                              | Optical Viewer | Construction Details                   |
|--------------|-----------|-----------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------|----------------------------------------|
| 64           |           |           |           |         | (40-72 ft) Metamorphic Rock, medium grained (0.25-0.5 mm) to coarse grained (0.5-2.0 mm), angular; Grey/ white; fresh; very hard (cannot be scratched by penknife); moderately fractured (0.1-0.3 m); Chlorite, biotite, feldspars, quartz; pitted; Foliated Gneiss . NOTE: Micaceous, foliated.                                                          | (40-160 ft) Drilled with water, Drill rods chattering |                |                                        |
| 65           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 66           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 67           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 68           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 69           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 70           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 71           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 72           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | Bentonite Pellets                      |
| 73           |           |           |           |         | (72-100 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to coarse grained (0.5-2.0 mm), angular; Light grey; fresh; hard (difficult to scratch with penknife); intensely fractured (0.03-0.1 m); Chlorite, biotite, feldspars, quartz; Granitic-gneiss, foliated . NOTE: Fractures present causing yellow staining and increased localized weathering.. |                                                       |                |                                        |
| 74           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 75           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 76           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 77           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 78           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 79           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 80           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | 2" Sch. 40 PVC, PZ-52D Casing          |
| 81           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | 1" Sch. 40 PVC, PZ-53D Casing          |
| 82           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 83           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 84           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 85           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 86           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 87           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 88           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | 2" 0.1-Slot Upack double filter Screen |
| 89           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | FilterSil 0.85 12/30 filter sand       |
| 90           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 91           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 92           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                | Sch. 40 PVC End Cap                    |
| 93           |           | 10        |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 94           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 95           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |
| 96           |           |           |           |         |                                                                                                                                                                                                                                                                                                                                                           |                                                       |                |                                        |

Remarks: \_\_\_\_\_

# Soil Boring and Construction Log

Sheet: 4 of 7

Client Name: Southern Company Services

Date Started: 08-18-2021

Logger: Auguste Parrinello

Project Number: 30055278Date Completed: 09-28-2021

Reviewer: Geoffrey Gay

Project Name: GPC Yates Drilling Oversight

Total Depth: 200.0 ft bgs

| Depth<br>(feet) | Sample ID | Rec.<br>(ft) | PID<br>(ppm) | Graphic | Description                                                                                                                                                                                                                                                                                                                                               | Drilling Fluid<br>and Notes                              | Optical Viewer | Construction Details |  |                 |
|-----------------|-----------|--------------|--------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------|----------------------|--|-----------------|
| 97              |           | 10           |              |         | (72-100 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to coarse grained (0.5-2.0 mm), angular; Light grey; fresh; hard (difficult to scratch with penknife); intensely fractured (0.03-0.1 m); Chlorite, biotite, feldspars, quartz; Granitic-gneiss, foliated . NOTE: Fractures present causing yellow staining and increased localized weathering.. | (40-160 ft)<br>Drilled with water, Drill rods chattering |                |                      |  |                 |
| 98              |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 99              |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 100             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 101             |           | 10           |              |         | (100-130 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to medium grained (0.25-0.5 mm), angular; Grey; fresh; hard (difficult to scratch with penknife); moderately fractured (0.1-0.3 m); Biotite, muscovite, quartz, feldspars, trace euhedral garnet; Foliated granitic gneiss .                                                                   |                                                          |                |                      |  |                 |
| 102             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 103             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 104             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 105             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 106             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 107             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 108             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 109             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  | Bentonite Chips |
| 110             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 111             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 112             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 113             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 114             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 115             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 116             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 117             |           | 10           |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 118             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 119             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 120             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 121             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 122             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 123             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 124             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 125             |           | 10           |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 126             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 127             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 128             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |
| 129             |           |              |              |         |                                                                                                                                                                                                                                                                                                                                                           |                                                          |                |                      |  |                 |

Remarks:

# Soil Boring and Construction Log

Sheet: 5 of 7

Client Name: Southern Company Services Date Started: 08-18-2021 Logger: Auguste Parrinello  
 Project Number: 30055278 Date Completed: 09-28-2021 Reviewer: Geoffrey Gay  
 Project Name: GPC Yates Drilling Oversight Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                | Drilling Fluid and Notes                              | Optical Viewer | Construction Details |
|--------------|-----------|-----------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------|----------------------|
| 130          |           | 10        |           |         | (130-140 ft) Metamorphic Rock, fine grained (0.06-0.25 mm), angular; Light grey; fresh; hard (difficult to scratch with penknife); slightly fractured (0.3-1 m); Biotite, muscovite, quartz, feldspars, garnet, pyrite ; Fine grained granitic gneiss. Finely Foliated.    | (40-160 ft) Drilled with water, Drill rods chattering |                |                      |
| 131          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 132          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 133          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 134          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 135          |           | 10        |           |         | (140-200 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to medium grained (0.25-0.5 mm), angular; fresh; hard (difficult to scratch with penknife); moderately fractured (0.1-0.3 m); Biotite, muscovite, quartz, feldspars, garnet, pyrite ; Foliated granitic gneiss. |                                                       |                |                      |
| 136          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 137          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 138          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 139          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 140          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 141          |           | 10        |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 142          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 143          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 144          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 145          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 146          |           | 10        |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 147          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 148          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 149          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 150          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 151          |           | 10        |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 152          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 153          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 154          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 155          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 156          |           | 10        |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 157          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 158          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 159          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 160          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 161          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |
| 162          |           |           |           |         |                                                                                                                                                                                                                                                                            |                                                       |                |                      |

Remarks: \_\_\_\_\_



# Soil Boring and Construction Log

Sheet: 6 of 7

Client Name: Southern Company Services      Date Started: 08-18-2021      Logger: Auguste Parrinello  
 Project Number: 30055278      Date Completed: 09-28-2021      Reviewer: Geoffrey Gay  
 Project Name: GPC Yates Drilling Oversight      Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                | Drilling Fluid and Notes | Optical Viewer | Construction Details |  |
|--------------|-----------|-----------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|----------------------|--|
| 163          |           |           |           |         | (140-200 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to medium grained (0.25-0.5 mm), angular; fresh; hard (difficult to scratch with penknife); moderately fractured (0.1-0.3 m); Biotite, muscovite, quartz, feldspars, garnet, pyrite ; Foliated granitic gneiss. |                          |                |                      |  |
| 164          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 165          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 166          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 167          |           |           |           |         | (167-168 ft) NOTE: Fine grained mafic intrusion. Foliated.                                                                                                                                                                                                                 |                          |                |                      |  |
| 168          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 169          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 170          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 171          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 172          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 173          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 174          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 175          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 176          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 177          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 178          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 179          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 180          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 181          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 182          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 183          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 184          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 185          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 186          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 187          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 188          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 189          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 190          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 191          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 192          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 193          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 194          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |
| 195          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |  |

FilterSil 0.85  
12/30 filter  
sand

Bentonite  
Chips

Remarks:



# Soil Boring and Construction Log

Sheet: 7 of 7

Client Name: Southern Company Services      Date Started: 08-18-2021      Logger: Auguste Parrinello  
 Project Number: 30055278      Date Completed: 09-28-2021      Reviewer: Geoffrey Gay  
 Project Name: GPC Yates Drilling Oversight      Total Depth: 200.0 ft bgs

| Depth (feet) | Sample ID | Rec. (ft) | PID (ppm) | Graphic | Description                                                                                                                                                                                                                                                                | Drilling Fluid and Notes | Optical Viewer | Construction Details |
|--------------|-----------|-----------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|----------------------|
| 196          |           |           |           |         | (140-200 ft) Metamorphic Rock, fine grained (0.06-0.25 mm) to medium grained (0.25-0.5 mm), angular; fresh; hard (difficult to scratch with penknife); moderately fractured (0.1-0.3 m); Biotite, muscovite, quartz, feldspars, garnet, pyrite ; Foliated granitic gneiss. |                          |                |                      |
| 197          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 198          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 199          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 200          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 201          |           |           |           |         | 200 ft. bgs End of Boring                                                                                                                                                                                                                                                  |                          |                |                      |
| 202          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 203          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 204          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 205          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 206          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 207          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 208          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 209          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 210          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 211          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 212          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 213          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 214          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 215          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 216          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 217          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 218          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 219          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 220          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 221          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 222          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 223          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 224          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 225          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 226          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 227          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |
| 228          |           |           |           |         |                                                                                                                                                                                                                                                                            |                          |                |                      |

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# RECORD OF BOREHOLE BH-54D: PZ-54D & PZ-56D

SHEET 1 of 5

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 200.0 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/17/2023  
DATE COMPLETED: 01/22/2024

NORTHING: 1256904.08  
EASTING: 2073369.06  
GS ELEVATION: 792.5  
TOC ELEVATION: 795.56

DEPTH W.L.: 25.40 / 45.75  
ELEVATION W.L.: 770.16 / 749.81  
DATE W.L.: 01/29/24  
TIME W.L.: 09:36

| DEPTH (ft)                         | DESCRIPTION                                                                                       | USCS     | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO | REC          | BH-54 MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS                                                                              |
|------------------------------------|---------------------------------------------------------------------------------------------------|----------|-------------|------------|------------|-------|--------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------|
| 0.0 - 3.0                          | (SM) Silty SAND; 5YR 4/6; loose; poorly sorted; fine grained; moist; trace gravel; FILL.          | SM       |             | 0.0        |            |       |              | PZ-54D: 2-inch diameter PVC Riser       | PZ-54D WELL CASING Interval: -3.06'-124' Material: Schedule 40 PVC Diameter: 2" Joint Type: Threaded   |
| 3.0 - 15.0                         | (SP) SAND; 10YR 7/3; well sorted; fine grained; dry; with some silt and coarse sand and gravel    | SP       |             | 3.0        | 1          |       | 8.2<br>10.0  | PZ-56D: 1-inch diameter PVC Riser       | PZ-54D WELL SCREEN Interval: 124'-134' Material: U-Pack Schedule 40 PVC Diameter: 2" Slot Size: 0.010" |
| 15.0 - 23.0                        | (SM) Silty SAND; 10YR 7/3; poorly sorted; fine grained; dry; some friable gravel-sized fragments. | SM       |             | 15.0       | 2          |       | 10.0<br>10.0 |                                         | PZ-54D FILTER PACK Interval: 121.9'-137.4' Type: Southern Products and Silica GP#2 Quantity: 2.25 cf   |
| 23.0 - 25.0                        | (ML) Sandy SILT; 5Y 5/3; hard; non-plastic; slightly moist.                                       | ML       |             | 23.0       | 3          |       | 10.0<br>10.0 |                                         | PZ-56D WELL CASING Interval: -3.06'-185' Material: Schedule 40 PVC Diameter: 1" Joint Type: Threaded   |
| 25.0 - 36.0                        | (SM) Silty SAND; 10YR 6/2; poorly sorted; fine grained; dry; some friable gravel-sized fragments. | SM       |             | 25.0       | 4          |       | 8.0<br>8.0   |                                         | PZ-56D WELL SCREEN Interval: 185'-195' Material: Schedule 40 PVC Diameter: 1" Slot Size: 0.010"        |
| 36.0 - 200.0                       | Biotite Gneiss; GLEY2 6/5PB; hard; medium grained; finely foliated; slightly weathered.           | BED-ROCK |             | 36.0       | 5          |       | 2.0<br>2.0   |                                         | PZ-56D FILTER PACK Interval: 182.8'-200' Type: Southern Products and Silica GP#2 Quantity: 3.5 cf      |
| 80 degree fracture, iron staining. |                                                                                                   |          |             |            |            |       |              |                                         | FILTER PACK SEAL Interval: 118'-121.9' Type: 3/8" Pel-Plug Bentonite Pellets Quantity: 0.6 cf          |
|                                    |                                                                                                   |          |             |            |            |       |              |                                         | ANNULUS SEAL Interval: 25'-118' Type: 3/8" Hole Plug Bentonite Chips Quantity: 21.5 cf                 |
|                                    |                                                                                                   |          |             |            |            |       |              |                                         | ANNULUS SEAL Interval: 0.5'-25' Type: Aquaguard Bentonite Grout Quantity: 7 cf                         |
|                                    |                                                                                                   |          |             |            |            |       |              |                                         | SURFACE COMPLETION Protection: 6"x6" Aluminum Pad: 4'x4' Concrete Lock: Yes Date: 1/22/2024            |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024



# RECORD OF BOREHOLE BH-54D: PZ-54D & PZ-56D SHEET 2 of 5

PROJECT: Georgia Power Plant Yates  
 PROJECT NUMBER: 30143622  
 DRILLED DEPTH: 200.0 ft  
 LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
 DATE STARTED: 12/17/2023  
 DATE COMPLETED: 01/22/2024

NORTHING: 1256904.08  
 EASTING: 2073369.06  
 GS ELEVATION: 792.5  
 TOC ELEVATION: 795.56

DEPTH W.L.: 25.40 / 45.75  
 ELEVATION W.L.: 770.16 / 749.81  
 DATE W.L.: 01/29/24  
 TIME W.L.: 09:36

| DEPTH (ft) | DESCRIPTION                                                                                                                    | USCS | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO                                                                                | REC          | BH-54<br>MONITORING WELL<br>DIAGRAM and<br>NOTES | WELL<br>CONSTRUCTION<br>DETAILS |
|------------|--------------------------------------------------------------------------------------------------------------------------------|------|-------------|------------|------------|--------------------------------------------------------------------------------------|--------------|--------------------------------------------------|---------------------------------|
| 40.0       | Biotite Gneiss; GLEY2 6/5PB; hard; medium grained; finely foliated; slightly weathered.<br>Biotite Schist 40.5 to 41 feet bgs. |      |             |            |            |                                                                                      |              |                                                  |                                 |
| 45         |                                                                                                                                |      |             |            | 6          |    | 7.6<br>10.0  |                                                  |                                 |
| 50         | Slightly weathered irregular joint                                                                                             |      |             |            |            |                                                                                      |              |                                                  |                                 |
| 55         | Weathered zone 10 degree iron stained fracture.                                                                                |      |             |            | 7          |   | 7.8<br>10.0  |                                                  |                                 |
| 60         | 1 foot weathered zone                                                                                                          |      |             |            |            |                                                                                      |              |                                                  |                                 |
| 65         | Grading to GLEY2 6/5 PB                                                                                                        |      |             |            | 8          |  | 10.0<br>10.0 |                                                  |                                 |
| 70         | Grading to GLEY2 7/5 NB                                                                                                        |      |             |            |            |                                                                                      |              |                                                  |                                 |
| 75         |                                                                                                                                |      |             |            | 9          |  | 7.5<br>10.0  |                                                  |                                 |
| 80         | Moderately weathered zone 88-89                                                                                                |      |             |            |            |                                                                                      |              |                                                  |                                 |

DRILLING COMPANY: Betts Drilling  
 DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
 DATE: 2/12/2024



# RECORD OF BOREHOLE BH-54D: PZ-54D & PZ-56D

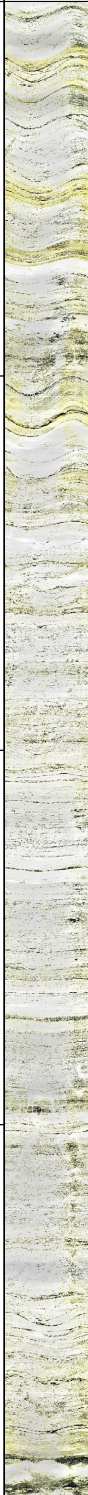
SHEET 3 of 5

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 200.0 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/17/2023  
DATE COMPLETED: 01/22/2024

NORTHING: 1256904.08  
EASTING: 2073369.06  
GS ELEVATION: 792.5  
TOC ELEVATION: 795.56

DEPTH W.L.: 25.40 / 45.75  
ELEVATION W.L.: 770.16 / 749.81  
DATE W.L.: 01/29/24  
TIME W.L.: 09:36

| DEPTH<br>(ft) | DESCRIPTION                                                                                                                                    | USCS     | GRAPHIC<br>LOG                                                                     | DEPTH<br>(ft) | SAMPLE NO.  | PHOTO                                                                               | REC | BH-54<br>MONITORING WELL<br>DIAGRAM and<br>NOTES                                     | WELL<br>CONSTRUCTION<br>DETAILS |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------|---------------|-------------|-------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------|---------------------------------|
|               | Biotite Gneiss; GLEY2 6/5PB; hard; medium grained; finely foliated; slightly weathered.<br>Slightly weathered, iron stained vertical fracture. | BED-ROCK |  | 80.0          |             |  |     |  |                                 |
| 85            | Slightly weathered, iron stained horizontal fracture.                                                                                          |          |                                                                                    | 10            | 8.4<br>10.0 |                                                                                     |     |                                                                                      |                                 |
| 90            | Fresh; no staning to 200 feet.                                                                                                                 |          |                                                                                    | 11            | 3.9<br>10.0 |                                                                                     |     |                                                                                      |                                 |
| 95            |                                                                                                                                                |          |                                                                                    | 12            | 5.0<br>10.0 |                                                                                     |     |                                                                                      |                                 |
| 100           |                                                                                                                                                |          |                                                                                    | 13            | 7.9<br>10.0 |                                                                                     |     |                                                                                      |                                 |
| 105           |                                                                                                                                                |          |                                                                                    |               |             |                                                                                     |     |                                                                                      |                                 |
| 110           |                                                                                                                                                |          |                                                                                    |               |             |                                                                                     |     |                                                                                      |                                 |
| 115           |                                                                                                                                                |          |                                                                                    |               |             |                                                                                     |     |                                                                                      |                                 |
| 120           |                                                                                                                                                |          |                                                                                    |               |             |                                                                                     |     |                                                                                      |                                 |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024



# RECORD OF BOREHOLE BH-54D: PZ-54D & PZ-56D

SHEET 4 of 5

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 200.0 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/17/2023  
DATE COMPLETED: 01/22/2024

NORTHING: 1256904.08  
EASTING: 2073369.06  
GS ELEVATION: 792.5  
TOC ELEVATION: 795.56

DEPTH W.L.: 25.40 / 45.75  
ELEVATION W.L.: 770.16 / 749.81  
DATE W.L.: 01/29/24  
TIME W.L.: 09:36

| DEPTH (ft) | DESCRIPTION                                                                             | USCS     | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO | REC         | BH-54 MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|------------|-----------------------------------------------------------------------------------------|----------|-------------|------------|------------|-------|-------------|-----------------------------------------|---------------------------|
| 125        | Biotite Gneiss; GLEY2 6/5PB; hard; medium grained; finely foliated; slightly weathered. | BED-ROCK |             | 120.0      | 14         |       | 5.0<br>10.0 | 3/8" Pel-Plug Bentonite Pellets         |                           |
| 130        |                                                                                         |          |             |            | 15         |       | 8.4<br>10.0 | GP#2 (7-35) Silica Sand                 |                           |
| 135        |                                                                                         |          |             |            | 16         |       | 8.6<br>10.0 | U-Pack Screen, slotted (0.010-inch)     |                           |
| 140        | Grading very coarse grained biotite.                                                    |          |             |            | 17         |       | 3.4<br>10.0 | 3/8" Hole Plug Bentonite Chips          |                           |
| 145        |                                                                                         |          |             |            |            |       |             |                                         |                           |
| 150        | Visible mineral grains                                                                  |          |             |            |            |       |             |                                         |                           |
| 155        |                                                                                         |          |             |            |            |       |             |                                         |                           |
| 160        |                                                                                         |          |             |            |            |       |             |                                         |                           |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024



# RECORD OF BOREHOLE BH-54D: PZ-54D & PZ-56D

SHEET 5 of 5

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 200.0 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/17/2023  
DATE COMPLETED: 01/22/2024

NORTHING: 1256904.08  
EASTING: 2073369.06  
GS ELEVATION: 792.5  
TOC ELEVATION: 795.56

DEPTH W.L.: 25.40 / 45.75  
ELEVATION W.L.: 770.16 / 749.81  
DATE W.L.: 01/29/24  
TIME W.L.: 09:36

| DEPTH (ft) | DESCRIPTION                                                                                                                    | USCS     | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO | REC          | BH-54 MONITORING WELL DIAGRAM and NOTES | WELL CONSTRUCTION DETAILS |
|------------|--------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------------|------------|-------|--------------|-----------------------------------------|---------------------------|
| 165        | Biotite Gneiss; GLEY2 6/5PB; hard; medium grained; finely foliated; slightly weathered.<br>No apparent foliation 160.2 -164 ft | BED-ROCK |             | 160.0      |            |       |              |                                         |                           |
| 170        |                                                                                                                                |          |             |            | 18         |       | 9.2<br>10.0  |                                         |                           |
| 175        | Very finely foliated with greenish mineral; visible mineral grains.                                                            |          |             |            | 19         |       | 6.5<br>10.0  | 3/8" Hole Plug Bentonite Chips          |                           |
| 180        | Recovered core section 0.5 feet. Bedrock grading more competent.                                                               |          |             |            |            |       |              |                                         |                           |
| 185        | Recovered core section 0.8 feet.<br>Recovered core section 1.5 feet.                                                           |          |             |            | 20         |       | 10.0<br>10.0 | GP#2 (7-35) Silica Sand                 |                           |
| 190        | Gneiss with visible biotite; fresh; interfoliated GLEY23/5PB and GLEY2 6/5PB                                                   |          |             |            | 21         |       | 6.5<br>10.0  | 1-inch ID Screen, slotted (0.010-inch)  |                           |
| 195        |                                                                                                                                |          |             |            |            |       |              |                                         |                           |
| 200        | Boring terminated.                                                                                                             |          |             |            |            |       |              |                                         |                           |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024





# RECORD OF BOREHOLE PZ-55

SHEET 1 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 65.3 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/13/2023  
DATE COMPLETED: 12/16/2023

NORTHING: 1257131.73  
EASTING: 2073193.74  
GS ELEVATION: 771.3  
TOC ELEVATION: 774.02

DEPTH W.L.: 29.4  
ELEVATION W.L.: 744.62  
DATE W.L.: 12/21/2023  
TIME W.L.: 11:15:00 AM

| DEPTH (ft) | DESCRIPTION                                                                                                                                                                                                                                                                                                                   | USCS     | GRAPHIC LOG | DEPTH (ft) | SAMPLE NO. | PHOTO | REC          | PZ-55 MONITORING WELL DIAGRAM and NOTES                    | WELL CONSTRUCTION DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------------|------------|-------|--------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.0 - 22.0 | (SM) Silty SAND; 10YR 7/4; loose; poorly sorted; fine to medium grained; slightly moist; trace coarse to medium mica; some relic rock structure.                                                                                                                                                                              | SM       |             | 0.0        |            |       |              | 2-inch diameter PVC Riser<br><br>Aquaguard Bentonite Grout | WELL CASING<br>Interval: -2.72'-55'<br>Material: Schedule 40 PVC<br>Diameter: 2"<br>Joint Type: Threaded<br><br>WELL SCREEN<br>Interval: 55'-65'<br>Material: U-Pack Schedule 40 PVC<br>Diameter: 2"<br>Slot Size: 0.010"<br><br>FILTER PACK<br>Interval: 52.5'-65.3'<br>Type: Southern Products and Silica GP#2<br>Quantity: 2.5 cf<br><br>FILTER PACK SEAL<br>Interval: 50.5'-52.5'<br>Type: 3/8" Pel-Plug Bentonite Pellets<br>Quantity: 0.6 cf<br><br>ANNULUS SEAL<br>Interval: 22'-50.5'<br>Type: 3/8" Hole Plug Bentonite Chips<br>Quantity: 6.3 cf<br><br>ANNULUS SEAL<br>Interval: 0.5'-22'<br>Type: Aquaguard Bentonite Grout<br>Quantity: 4.6 cf<br><br>SURFACE COMPLETION<br>Protection: 4"x4" Aluminum<br>Pad: 4'x4' Concrete<br>Lock: Yes<br>Date: 1/5/2024 |
| 5          | Grading to 10YR 6/6.                                                                                                                                                                                                                                                                                                          |          |             |            | 1          |       | 8.5<br>10.0  |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10         | Grading to 7.5YR 5/6                                                                                                                                                                                                                                                                                                          |          |             |            | 2          |       | 10.0<br>10.0 |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 15         | Grading to 10YR 5/3.                                                                                                                                                                                                                                                                                                          |          |             |            |            |       |              |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 20         | Grading to 10YR 6/6; moist.                                                                                                                                                                                                                                                                                                   | BED-ROCK |             | 22.0       |            |       |              | 3/8" Hole Plug Bentonite Chips                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 25         | 22.0 - 65.3<br>Biotite Gneiss; 5Y 7/2' highly weathered; dry; with some gravel-size less weathered fragments.                                                                                                                                                                                                                 |          |             |            | 3          |       | 10.0<br>10.0 |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 30         | Grading 10YR 6/4.<br><br>grading some 2 to 3 inch sections of moderately weathered gneiss and highly weathered gneiss.                                                                                                                                                                                                        |          |             |            |            |       |              |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 35         | No recovery 30-33 ft likely due to advancing core barrel with water.<br><br>PWR; Partially to moderately weathered; Gneiss; some competent to moderately weathered rock; some pieces of friable rock. Core fragments medium to large pebbles to 1-3 inch pieces of core.<br>35 to 36.5 ft; Fine to coarse grained sandy zone. |          |             |            | 4          |       | 6.5<br>10.0  |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 40         |                                                                                                                                                                                                                                                                                                                               |          |             |            |            |       |              |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024





# RECORD OF BOREHOLE PZ-55

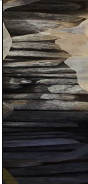
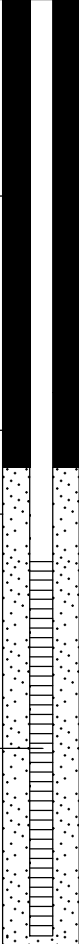
SHEET 2 of 2

PROJECT: Georgia Power Plant Yates  
PROJECT NUMBER: 30143622  
DRILLED DEPTH: 65.3 ft  
LOCATION: Newnan, GA

DRILL RIG: TerraSonic 150CC  
DATE STARTED: 12/13/2023  
DATE COMPLETED: 12/16/2023

NORTHING: 1257131.73  
EASTING: 2073193.74  
GS ELEVATION: 771.3  
TOC ELEVATION: 774.02

DEPTH W.L.: 29.4  
ELEVATION W.L.: 744.62  
DATE W.L.: 12/21/2023  
TIME W.L.: 11:15:00 AM

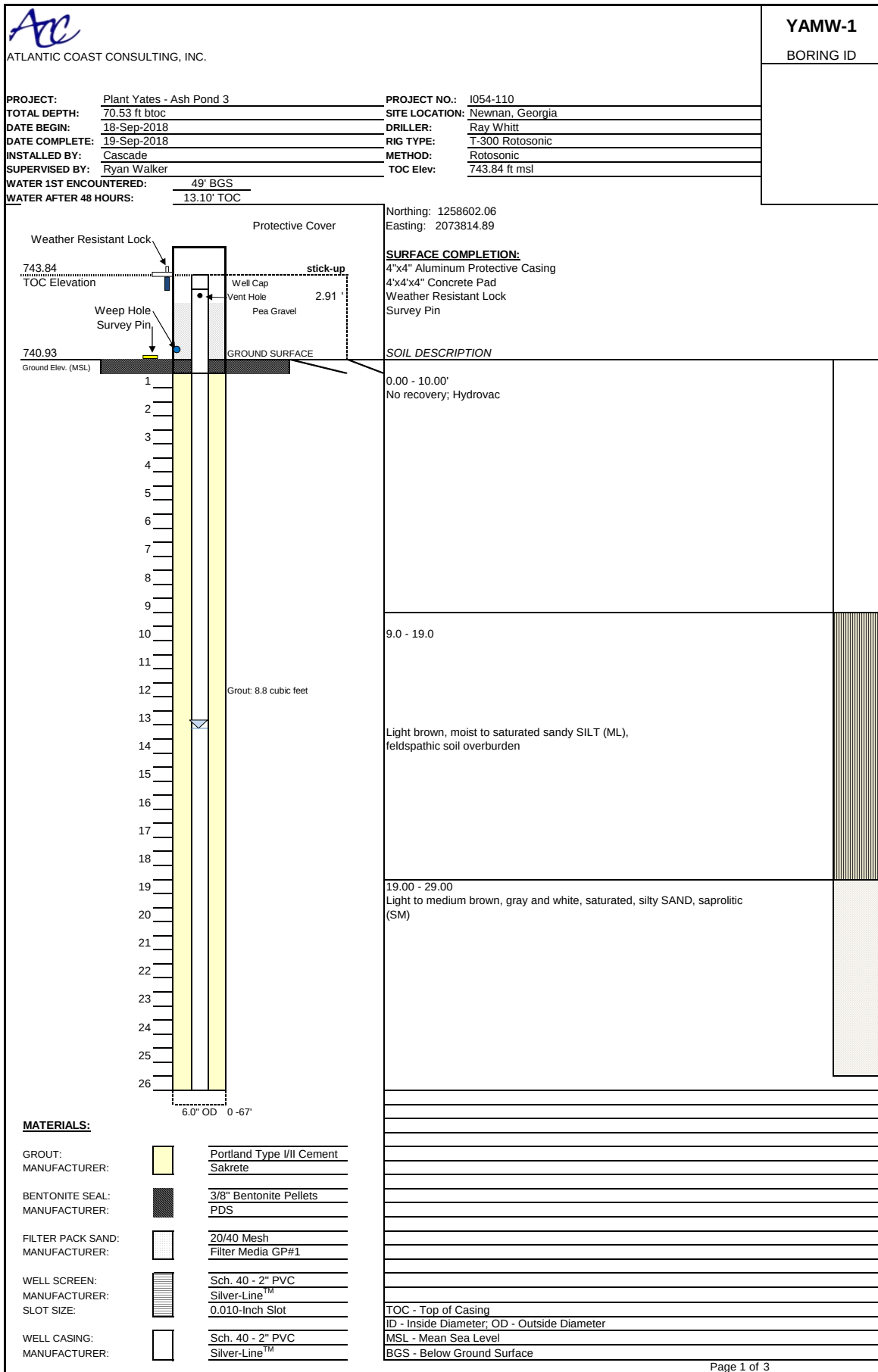
| DEPTH (ft) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                               | USCS     | GRAPHIC LOG                                                                        | DEPTH (ft) | SAMPLE NO. | PHOTO                                                                               | REC         | PZ-55 MONITORING WELL DIAGRAM and NOTES                                              | WELL CONSTRUCTION DETAILS |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------|------------|------------|-------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------|---------------------------|
| 45         | Biotite Gneiss; 5Y 7/2' highly weathered; dry; with some gravel-size less weathered fragments.<br>40 to 45 ft; Gneiss; fresh; competent; no staining; very hard; micro-crystalline to coarse crystals; mostly felsic mineralogy; no staining; black and white; observed some pyrite in rock; multiple horizontal fractures; likely due to sonic drilling. | BED-ROCK |  | 40.0       | 5          |   | 4.0<br>5.0  |  |                           |
| 50         | 45 to 55 ft; Poor recovery, possible fracture zone; no observable loss in drilling fluid; observed some red staining on rock core; moderately fractured; mostly horizontal-low angle.                                                                                                                                                                     |          |                                                                                    |            | 6          |   | 4.5<br>10.0 |                                                                                      |                           |
| 60         | 55 to 65 ft; Poor recovery; possible fractures zone; no observed loss in drilling fluid; observed some red or orange staining. Staining on rock core around possible fracture zone; moderately fractured; fractures mostly horizontal-low angle.                                                                                                          |          |                                                                                    |            | 7          |  | 4.9<br>10.0 |                                                                                      |                           |
| 65         | Boring terminated at 65.3 feet bgs.                                                                                                                                                                                                                                                                                                                       |          |                                                                                    |            |            |                                                                                     |             |                                                                                      |                           |
| 70         |                                                                                                                                                                                                                                                                                                                                                           |          |                                                                                    |            |            |                                                                                     |             |                                                                                      |                           |
| 75         |                                                                                                                                                                                                                                                                                                                                                           |          |                                                                                    |            |            |                                                                                     |             |                                                                                      |                           |
| 80         |                                                                                                                                                                                                                                                                                                                                                           |          |                                                                                    |            |            |                                                                                     |             |                                                                                      |                           |

DRILLING COMPANY: Betts Drilling  
DRILLER: Ryan McCormack

CHECKED BY: David Prouty  
DATE: 2/12/2024



The well coordinates and elevation data were revised  
based on a 2025 survey (Arcadis, November 19, 2025).





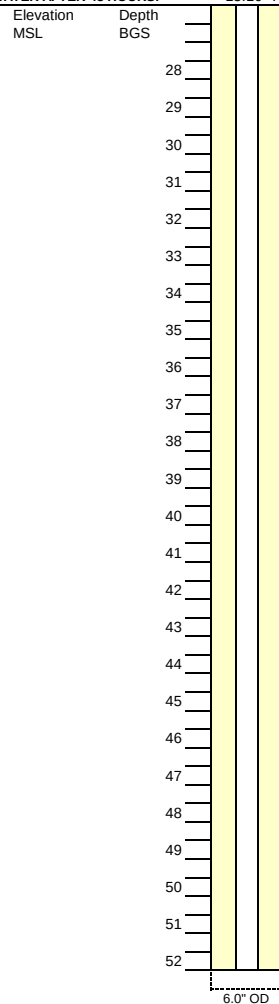
ATLANTIC COAST CONSULTING, INC.

**YAMW-1**

**BORING ID**

PROJECT: Plant Yates - Ash Pond 3  
TOTAL DEPTH: 70.53 ft. TOC  
DATE BEGIN: 18-Sep-2018  
DATE COMPLETE: 19-Sep-2018  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
PROJECT NO.: I054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Ray Whitt  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic  
TOC Elev: 743.84 ft msl

WATER 1ST ENCOUNTERED: 49' BGS  
WATER AFTER 48 HOURS: 13.10' TOC



Light to medium brown, gray and white, saturated, silty SAND, saprolitic (SM)

19.0 -29.0

29.0 - 39.0 Recovery (10/10)

Medium brown, white and gray, dry silty SAND, micaceous and saprolitic (SM)

39.0 - 44.0 Recovery (5/5)

Medium brown, white and gray, dry silty SAND, micaceous and saprolitic (SM)

44. - 49.0 Recovery (2/5)

White to dark brown, Biotite/muscovite gneiss, weathered, friable, iron staining at 54' (easily fractured)

49.0 -59.0 Recovery (5/10)

Gray, white brown Gneiss, iron staining

**MATERIALS:**

GROUT:  Portland Type I/II Cement  
MANUFACTURER: Sakrete  
BENTONITE SEAL:  3/8" Bentonite Pellets  
MANUFACTURER: PDS  
FILTER PACK SAND:  20/40 Mesh  
MANUFACTURER: Filter Media GP#1  
WELL SCREEN:  Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line™  
SLOT SIZE: 0.010-Inch Slot  
WELL CASING:  Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line™

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface



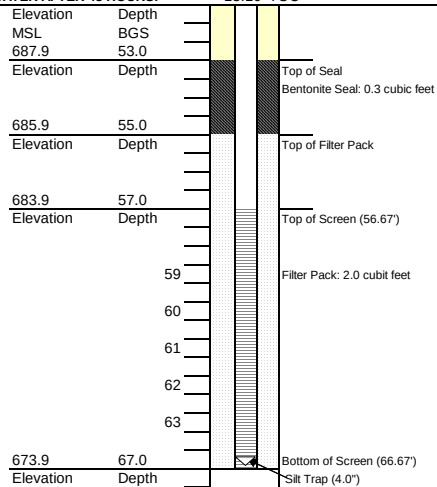
ATLANTIC COAST CONSULTING, INC.

**YAMW-1**

BORING ID

PROJECT: Plant Yates - Ash Pond 3  
TOTAL DEPTH: 70.53 ft. TOC  
DATE BEGIN: 18-Sep-2018  
DATE COMPLETE: 19-Sep-2018  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
PROJECT NO.: J054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Ray Whitt  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic  
TOC Elev: 743.84 ft msl

WATER 1ST ENCOUNTERED: 49' BGS  
WATER AFTER 48 HOURS: 13.10' TOC



49.0 - 59.0 Recovery (5/10)

Gray, white brown Gneiss, iron staining, highly fractured

59.0 - 62.0 Recovery (2.1/3.0)

Gray, white brown Gneiss, iron staining, highly fractured

62.0 - 70.0 Recovery (7.2/8.0)

Hard rock. Visibly harder drilling. Biotite/muscovite gneiss, non-friable.

Gray, white brown Gneiss, iron staining, highly fractured

Boring terminated at 70.0' BGS

**MATERIALS:**

GROUT: Portland Type I/II Cement  
MANUFACTURER: Sakrete

BENTONITE SEAL: 3/8" Bentonite Pellets  
MANUFACTURER: PDS

FILTER PACK SAND: 20/40 Mesh  
MANUFACTURER: Filter Media GP#1

WELL SCREEN: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line™  
SLOT SIZE: 0.010-Inch Slot

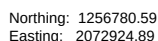
WELL CASING: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line™

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface

Acc

BORING ID

|                |                 |
|----------------|-----------------|
| PROJECT NO.:   | 1054-110        |
| SITE LOCATION: | Newnan, Georgia |
| DRILLER:       | Isaac Young     |
| RIG TYPE:      | T-300 Rotosonic |
| METHOD:        | Rotosonic       |



**SURFACE COMPLETION:**  
4"x4" Aluminum Protective Casing  
4'x4'x4" Concrete Pad  
Weather Resistant Lock  
Survey Pin

|                                        |
|----------------------------------------|
| 0-10' Hydrovac. No observable cuttings |
|----------------------------------------|

19-29' (10/10)  
19-21' As above except mostly sand.

21-23' Mostly silt, brown, moist, medium dense, slight plasticity and micaceous.

23-29' Moslty sand (SC) brown to tan, slightly moist, some saprolite.

|                   |                                                                                     |                        |
|-------------------|-------------------------------------------------------------------------------------|------------------------|
| GROUT:            |  | Bentonite Grout        |
| MANUFACTURER:     |                                                                                     | AquaGuard              |
| BENTONITE SEAL:   |  | 3/8" Bentonite Pellets |
| MANUFACTURER:     |                                                                                     | Pel-Plug               |
| FILTER PACK SAND: |  | 20/30 Mesh             |
| MANUFACTURER:     |                                                                                     | Filter Media           |
| WELL SCREEN:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |
| SLOT SIZE:        |  | 0.010-inch Slot        |
| WELL CASING:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |

Soil Descriptions from Unified Soil Classification System

BTOC - Below Top of Casing

ID - Inside Diameter; OD - Outside Diameter

MSL - Mean Sea Level

BGS - Below Ground Surface



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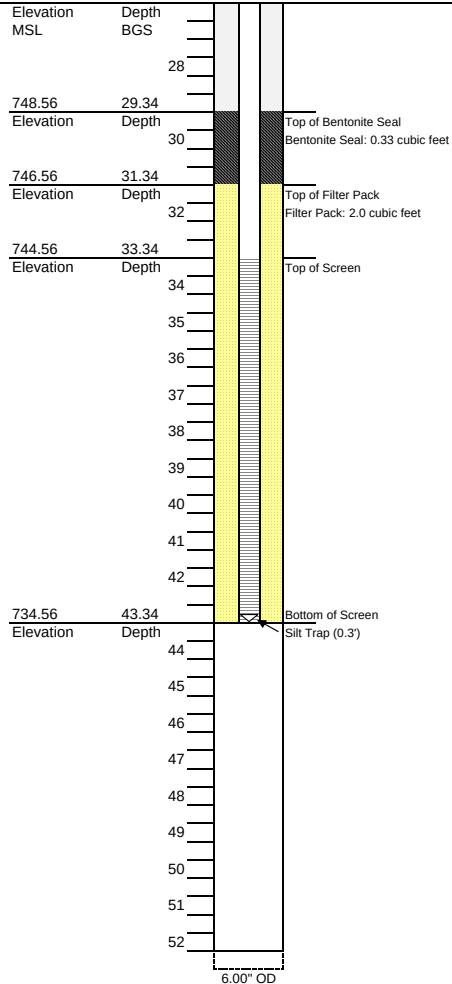
**YAMW-2**

**BORING ID**

PROJECT: Plant Yates  
TOTAL DEPTH: 46.86 ft. BTOC  
DATE BEGIN: 11-Nov-2019  
DATE COMPLETE: 12-Nov-2019  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
WATER 1ST ENCOUNTERED: 20' BGS  
WATER AFTER 48 HOURS: 22.72' BGS

PROJECT NO.: I054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Isaac Young  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic

Core Photos



29-39' Harder drilling. No recovery (0/10)

39-43' Hard rock gneissic banding/schist. Some garnet. Iron staining present (4/4)

Total well depth 43.64' BGS

**MATERIALS:**

GROUT: Bentonite Grout  
MANUFACTURER: AquaGuard

BENTONITE SEAL: 3/8" Bentonite Pellets  
MANUFACTURER: Pel-Plug

FILTER PACK SAND: 20/30 Mesh  
MANUFACTURER: Filter Media

WELL SCREEN: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line  
SLOT SIZE: 0.010-Inch Slot

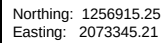
WELL CASING: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface

**ACC**  
ATLANTIC COAST CONSULTING, INC.

BORING ID

|                |                 |
|----------------|-----------------|
| PROJECT NO.:   | I054-110        |
| SITE LOCATION: | Newnan, Georgia |
| DRILLER:       | Isaac Young     |
| RIG TYPE:      | T-300 Rotasonic |
| METHOD:        | Rotasonic       |



| SOIL DESCRIPTION                      |
|---------------------------------------|
| 0-9' Hydrovac. No observable cuttings |

19-29' As above-tan to medium brown, some hard gravel pieces  
(10/10)



|                   |                                                                                     |                        |
|-------------------|-------------------------------------------------------------------------------------|------------------------|
| GROUT:            |  | Bentonite Grout        |
| MANUFACTURER:     |                                                                                     | AquaGuard              |
| BENTONITE SEAL:   |  | 3/8" Bentonite Pellets |
| MANUFACTURER:     |                                                                                     | Pel-Plug               |
| FILTER PACK SAND: |  | 20/30 Mesh             |
| MANUFACTURER:     |                                                                                     | Filter Media           |
| WELL SCREEN:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |
| SLOT SIZE:        |  | 0.010-Inch Slot        |
| WELL CASING:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Campbell Monoflex      |

|                                             |
|---------------------------------------------|
| BTOC - Below Top of Casing                  |
| ID - Inside Diameter; OD - Outside Diameter |
| MSL - Mean Sea Level                        |
| BGS - Below Ground Surface                  |



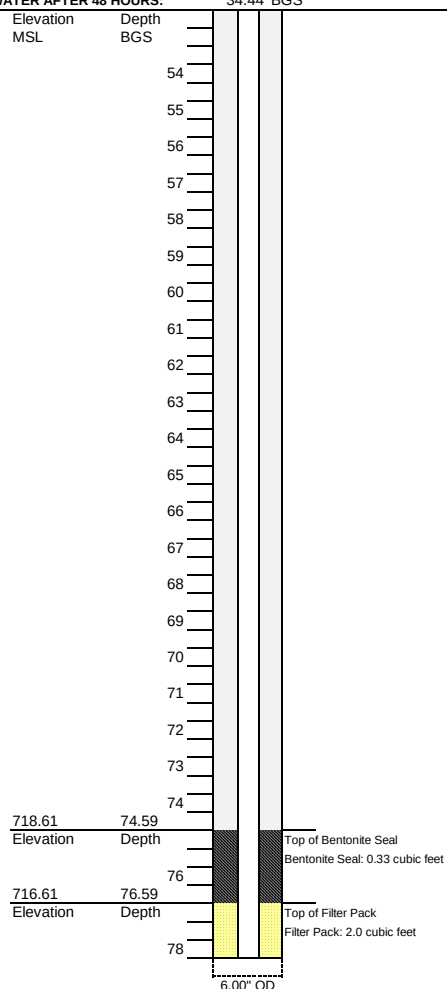




BORING ID

|                        |                |                |                 |
|------------------------|----------------|----------------|-----------------|
| PROJECT:               | Plant Yates    | PROJECT NO.:   | I054-110        |
| TOTAL DEPTH:           | 91.96 ft. BTOC | SITE LOCATION: | Newnan, Georgia |
| DATE BEGIN:            | 5-Nov-2019     | DRILLER:       | Isaac Young     |
| DATE COMPLETE:         | 6-Nov-2019     | RIG TYPE:      | T-300 Rotasonic |
| INSTALLED BY:          | Cascade        | METHOD:        | Rotasonic       |
| SUPERVISED BY:         | Ryan Walker    |                |                 |
| WATER 1ST ENCOUNTERED: | 30' BGS        |                |                 |
| WATER AFTER 48 HOURS:  | 34.4' BGS      |                |                 |

## Core Photos



**MATERIALS:**

|                   |                                                                                     |                        |
|-------------------|-------------------------------------------------------------------------------------|------------------------|
| GROUT:            |  | Bentonite Grout        |
| MANUFACTURER:     |                                                                                     | AquaGuard              |
| BENTONITE SEAL:   |  | 3/8" Bentonite Pellets |
| MANUFACTURER:     |                                                                                     | Pel-Plug               |
| FILTER PACK SAND: |  | 20/30 Mesh             |
| MANUFACTURER:     |                                                                                     | Filter Media           |
| WELL SCREEN:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Silver-Line            |
| SLOT SIZE:        |  | 0.010-Inch Slot        |
| WELL CASING:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |                                                                                     | Silver-Line            |

59-69' As above, large rock pieces/less fractures  
No iron staining (5/10)

69-79' (10/10)  
72-74' more fractured than previous  
74-79' lots of iron staining. Some quartzite.



|                                             |
|---------------------------------------------|
| TOC - Top of Casing                         |
| ID - Inside Diameter; OD - Outside Diameter |
| MSL - Mean Sea Level                        |
| BGS - Below Ground Surface                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|
| <br>ATLANTIC COAST CONSULTING, INC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | <b>YAMW-3</b><br>BORING ID                                                                                                        |
| PROJECT: Plant Yates<br>TOTAL DEPTH: 91.96 ft. BTOC<br>DATE BEGIN: 5-Nov-2019<br>DATE COMPLETE: 6-Nov-2019<br>INSTALLED BY: Cascade<br>SUPERVISED BY: Ryan Walker<br>WATER 1ST ENCOUNTERED: 30' BGS<br>WATER AFTER 48 HOURS: 34.44' BGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | PROJECT NO.: I054-110<br>SITE LOCATION: Newnan, Georgia<br>DRILLER: Isaac Young<br>RIG TYPE: T-300 Rotosonic<br>METHOD: Rotosonic |
| <div> <div> <div> <div>714.61</div> <div>Elevation</div> </div> <div> <div>78.59</div> <div>Depth</div> </div> </div> <div> <div>704.61</div> <div>Elevation</div> </div> <div> <div>88.59</div> <div>Depth</div> </div> </div> <div> <div>80</div> <div>81</div> <div>82</div> <div>83</div> <div>84</div> <div>85</div> <div>86</div> <div>87</div> <div>88</div> <div>90</div> <div>91</div> <div>92</div> <div>93</div> <div>94</div> <div>95</div> <div>96</div> <div>97</div> <div>98</div> <div>99</div> <div>100</div> <div>101</div> <div>102</div> <div>103</div> <div>104</div> </div> <div> <div>Top of Screen</div> <div>Bottom of Screen</div> <div>Silt Trap (0.3')</div> <div>6.00" OD</div> </div> |  |                                                                                                                                   |

79-88' As above. Iron staining stops at ~81'

Total well depth 88.89' BGS



Acc

BORING ID

Page 1 of 4



ATLANTIC COAST CONSULTING, INC.

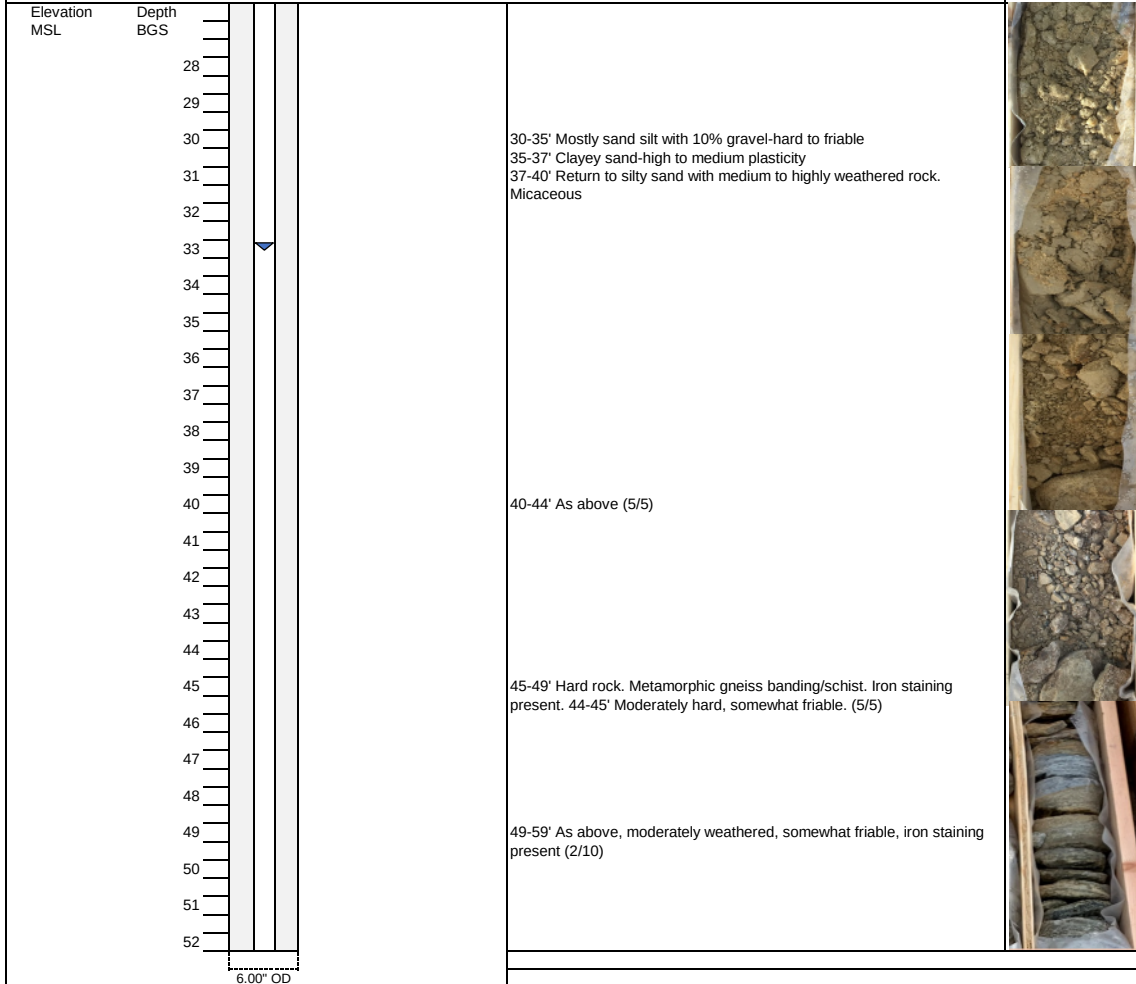
YAMW-4

BORING ID

PROJECT: Plant Yates  
TOTAL DEPTH: 96.86 ft. BTOC  
DATE BEGIN: 5-Nov-2019  
DATE COMPLETE: 7-Nov-2019  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
WATER 1ST ENCOUNTERED: 30' BGS  
WATER AFTER 48 HOURS: 30.68' BGS

PROJECT NO.: I054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Isaac Young  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic

Core Photos



**MATERIALS:**

GROUT:  
MANUFACTURER: Bentonite Grout  
AquaGuard

BENTONITE SEAL:  
MANUFACTURER: 3/8" Bentonite Pellets  
Pel-Plug

FILTER PACK SAND:  
MANUFACTURER: 20/30 Mesh  
Filter Media

WELL SCREEN:  
MANUFACTURER: Sch. 40 - 2" PVC  
Silver-Line

SLOT SIZE: 0.010-Inch Slot

WELL CASING:  
MANUFACTURER: Sch. 40 - 2" PVC  
Silver-Line

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface



ATLANTIC COAST CONSULTING, INC.

**YAMW-4**

BORING ID

PROJECT: Plant Yates

PROJECT NO.: 1054-110

TOTAL DEPTH: 96.86 ft. BTOC

SITE LOCATION: Newnan, Georgia

DATE BEGIN: 5-Nov-2019

DRILLER: Isaac Young

DATE COMPLETE: 7-Nov-2019

RIG TYPE: T-300 Rotosonic

INSTALLED BY: Cascade

METHOD: Rotosonic

SUPERVISED BY: Ryan Walker

WATER 1ST ENCOUNTERED: 30' BGS

WATER AFTER 48 HOURS: 30.68' BGS

Elevation MSL

Depth BGS

54

55

56

57

58

59

60

61

62

63

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65

66

67

68

69

70

71

72

73

74

75

76

77

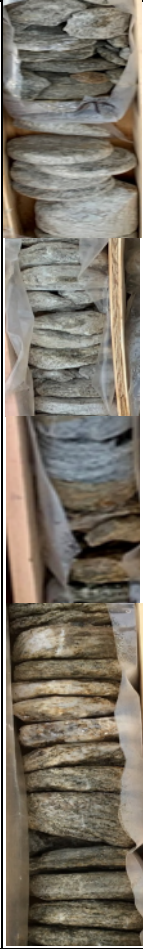
78

6.00" OD

59-69' As above except less weathered rock, non friable. Still some iron staining present (8/10)

69-79' As above except rock is more weathered. Section of quartzite at 73-74'. Iron staining ends at 77'. (7/10)

Core Photos



MATERIALS:

GROUT:

MANUFACTURER:

BENTONITE SEAL:

MANUFACTURER:

FILTER PACK SAND:

MANUFACTURER:

WELL SCREEN:

MANUFACTURER:

SLOT SIZE:

WELL CASING:

MANUFACTURER:

Bentonite Grout

AquaGuard

3/8" Bentonite Pellets

Pel-Plug

20/30 Mesh

Filter Media

Sch. 40 - 2" PVC

Silver-Line

0.010-Inch Slot

Sch. 40 - 2" PVC

Silver-Line

TOC - Top of Casing

ID - Inside Diameter; OD - Outside Diameter

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Page 3 of 4



ATLANTIC COAST CONSULTING, INC.

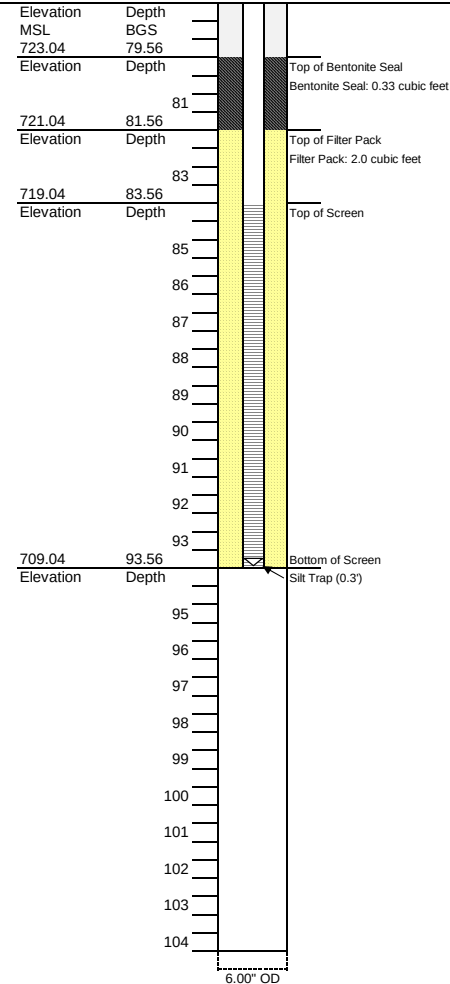
**YAMW-4**

BORING ID

PROJECT: Plant Yates  
TOTAL DEPTH: 96.86 ft. BTOC  
DATE BEGIN: 5-Nov-2019  
DATE COMPLETE: 7-Nov-2019  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
WATER 1ST ENCOUNTERED: 30' BGS  
WATER AFTER 48 HOURS: 30.68' BGS

PROJECT NO.: I054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Isaac Young  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic

Core Photos



79-89' Very competent rock with some fracturing at 84-85' and 88-89'. Iron staining at 88-89'

89-94' Fractures and iron staining from 89-90' and 93-94'. Some slight iron staining from 90-93' but mostly solid core.

Total well depth 93.86' BGS



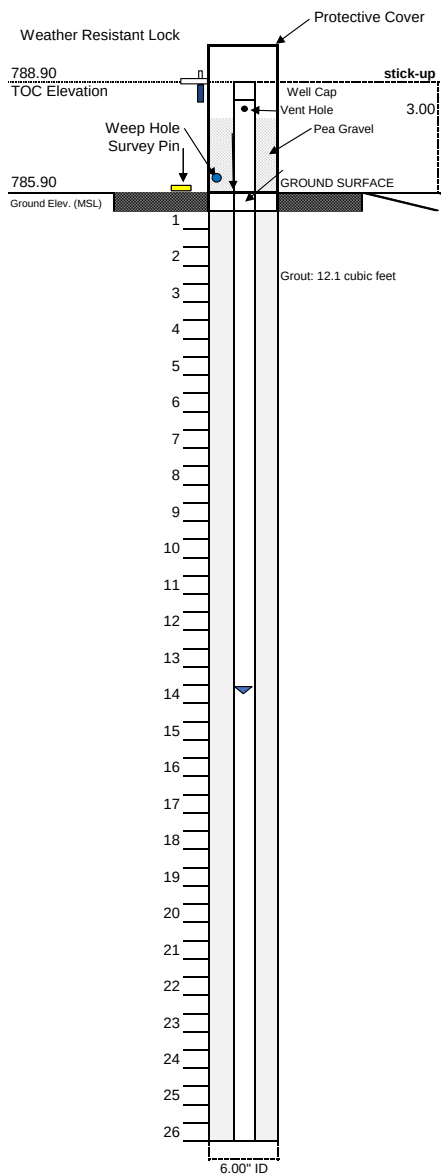
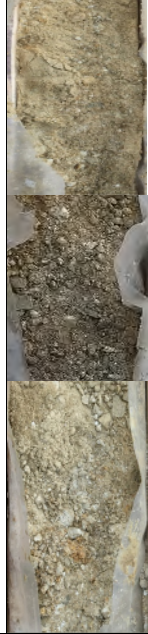
**MATERIALS:**

|                   |  |                        |
|-------------------|--|------------------------|
| GROUT:            |  | Bentonite Grout        |
| MANUFACTURER:     |  | AquaGuard              |
| BENTONITE SEAL:   |  | 3/8" Bentonite Pellets |
| MANUFACTURER:     |  | Pel-Plug               |
| FILTER PACK SAND: |  | 20/30 Mesh             |
| MANUFACTURER:     |  | Filter Media           |
| WELL SCREEN:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |  | Silver-Line            |
| SLOT SIZE:        |  | 0.010-Inch Slot        |
| WELL CASING:      |  | Sch. 40 - 2" PVC       |
| MANUFACTURER:     |  | Silver-Line            |

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface



The well coordinates and elevation data were revised  
based on a June 2020 survey (Arcadis, June 29, 2020).

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
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| <br>ATLANTIC COAST CONSULTING, INC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     | <b>YAMW-5</b><br>BORING ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">PROJECT: Plant Yates</td> <td style="width: 33%;">PROJECT NO.: I054-110</td> <td style="width: 33%;"></td> </tr> <tr> <td>TOTAL DEPTH: 90.66 ft. BTOC</td> <td>SITE LOCATION: Newnan, Georgia</td> <td></td> </tr> <tr> <td>DATE BEGIN: 12-Nov-2019</td> <td>DRILLER: Isaac Young</td> <td></td> </tr> <tr> <td>DATE COMPLETE: 13-Nov-2019</td> <td>RIG TYPE: T-300 Rotosonic</td> <td></td> </tr> <tr> <td>INSTALLED BY: Cascade</td> <td>METHOD: Rotosonic</td> <td></td> </tr> <tr> <td>SUPERVISED BY: Ryan Walker</td> <td></td> <td></td> </tr> <tr> <td>WATER 1ST ENCOUNTERED: 35' BGS</td> <td></td> <td></td> </tr> <tr> <td>WATER AFTER 48 HOURS: 11.21' BGS</td> <td></td> <td></td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PROJECT: Plant Yates                                                                | PROJECT NO.: I054-110 |               | TOTAL DEPTH: 90.66 ft. BTOC                                                         | SITE LOCATION: Newnan, Georgia |                 | DATE BEGIN: 12-Nov-2019                                                             | DRILLER: Isaac Young   |               | DATE COMPLETE: 13-Nov-2019                                                          | RIG TYPE: T-300 Rotosonic |                   | INSTALLED BY: Cascade                                                               | METHOD: Rotosonic |               | SUPERVISED BY: Ryan Walker                                                          |              |              | WATER 1ST ENCOUNTERED: 35' BGS                                                      |                  |               | WATER AFTER 48 HOURS: 11.21' BGS                                                    |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| PROJECT: Plant Yates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT NO.: I054-110                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| TOTAL DEPTH: 90.66 ft. BTOC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SITE LOCATION: Newnan, Georgia                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| DATE BEGIN: 12-Nov-2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DRILLER: Isaac Young                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| DATE COMPLETE: 13-Nov-2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RIG TYPE: T-300 Rotosonic                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| INSTALLED BY: Cascade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | METHOD: Rotosonic                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| SUPERVISED BY: Ryan Walker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| WATER 1ST ENCOUNTERED: 35' BGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| WATER AFTER 48 HOURS: 11.21' BGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     | <p>           Northing: 1256140.21<br/>           Easting: 2074486.69         </p> <p> <b>SURFACE COMPLETION:</b><br/>           4"x4" Aluminum Protective Casing<br/>           4"x4"x4" Concrete Pad<br/>           Weather Resistant Lock<br/>           Survey Pin         </p> <p> <b>SOIL DESCRIPTION</b><br/>           0-10' Hydrovac. No observable cuttings         </p> <p>           9-19' tan to pale brown. Silty sand (SC) with some silt and clays, moist to dry, soft, some saprolite. (10/10)         </p> <p>           19-29' As above (9/10).         </p> |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| <p><b>MATERIALS:</b></p> <table border="0"> <tr> <td>GROUT:</td> <td></td> <td>Bentonite Grout</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td>AquaGuard</td> </tr> <tr> <td>BENTONITE SEAL:</td> <td></td> <td>3/8" Bentonite Pellets</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td>Pel-Plug</td> </tr> <tr> <td>FILTER PACK SAND:</td> <td></td> <td>20/30 Mesh</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td>Filter Media</td> </tr> <tr> <td>WELL SCREEN:</td> <td></td> <td>Sch. 40 - 2" PVC</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td>Campbell Monoflex</td> </tr> <tr> <td>SLOT SIZE:</td> <td></td> <td>0.010-Inch Slot</td> </tr> <tr> <td>WELL CASING:</td> <td></td> <td>Sch. 40 - 2" PVC</td> </tr> <tr> <td>MANUFACTURER:</td> <td></td> <td>Campbell Monoflex</td> </tr> </table> |                                                                                     | GROUT:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Bentonite Grout       | MANUFACTURER: |  | AquaGuard                      | BENTONITE SEAL: |  | 3/8" Bentonite Pellets | MANUFACTURER: |  | Pel-Plug                  | FILTER PACK SAND: |  | 20/30 Mesh        | MANUFACTURER: |  | Filter Media | WELL SCREEN: |  | Sch. 40 - 2" PVC | MANUFACTURER: |  | Campbell Monoflex | SLOT SIZE: |  | 0.010-Inch Slot | WELL CASING: |  | Sch. 40 - 2" PVC | MANUFACTURER: |  | Campbell Monoflex | <div style="display: flex;">  </div> |
| GROUT:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Bentonite Grout                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| MANUFACTURER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | AquaGuard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| BENTONITE SEAL:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | 3/8" Bentonite Pellets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| MANUFACTURER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Pel-Plug                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| FILTER PACK SAND:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | 20/30 Mesh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| MANUFACTURER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Filter Media                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| WELL SCREEN:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Sch. 40 - 2" PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| MANUFACTURER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Campbell Monoflex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| SLOT SIZE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 0.010-Inch Slot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| WELL CASING:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Sch. 40 - 2" PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
| MANUFACTURER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Campbell Monoflex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     | Soil Descriptions from Unified Soil Classification System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     | BTOC - Below Top of Casing<br>ID - Inside Diameter; OD - Outside Diameter<br>MSL - Mean Sea Level<br>BGS - Below Ground Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                       |               |                                                                                     |                                |                 |                                                                                     |                        |               |                                                                                     |                           |                   |                                                                                     |                   |               |                                                                                     |              |              |                                                                                     |                  |               |                                                                                     |                   |            |                                                                                     |                 |              |                                                                                     |                  |               |                                                                                     |                   |                                                                                                                          |



ATLANTIC COAST CONSULTING, INC.

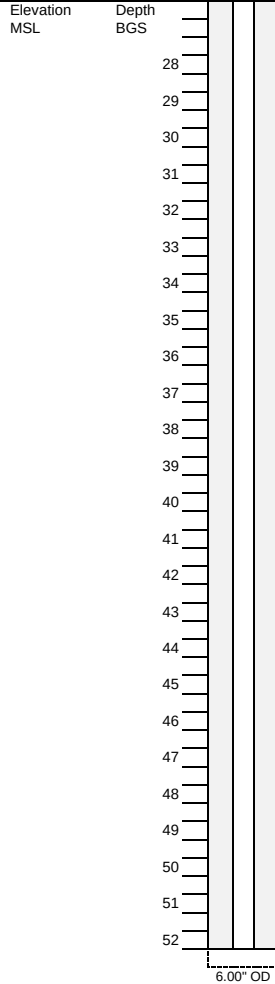
**YAMW-5**

BORING ID

PROJECT: Plant Yates  
TOTAL DEPTH: 90.66 ft. BTOC  
DATE BEGIN: 12-Nov-2019  
DATE COMPLETE: 13-Nov-2019  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
WATER 1ST ENCOUNTERED: 35' BGS  
WATER AFTER 48 HOURS: 11.21' BGS

PROJECT NO.: 1054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Isaac Young  
RIG TYPE: T-300 Rotasonic  
METHOD: Rotasonic

Core Photos



29-39' Harder drilling. Gneissic banding with schist. Iron and manganese staining. Some fractures present.

39-49' As above except no iron staining (7/10)

49-59' As above (8/10)



**MATERIALS:**

GROUT: Bentonite Grout  
MANUFACTURER: AquaGuard  
BENTONITE SEAL: 3/8" Bentonite Pellets  
MANUFACTURER: Pel-Plug  
FILTER PACK SAND: 20/30 Mesh  
MANUFACTURER: Filter Media  
WELL SCREEN: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line  
SLOT SIZE: 0.010-Inch Slot  
WELL CASING: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface



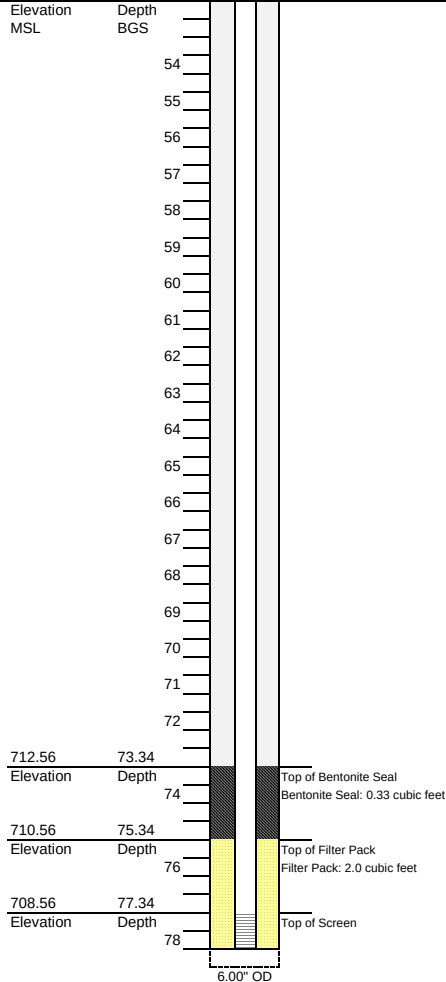
ATLANTIC COAST CONSULTING, INC.

YAMW-5

BORING ID

PROJECT: Plant Yates  
TOTAL DEPTH: 90.66 ft. BTOC  
DATE BEGIN: 12-Nov-2019  
DATE COMPLETE: 13-Nov-2019  
INSTALLED BY: Cascade  
SUPERVISED BY: Ryan Walker  
PROJECT NO.: 1054-110  
SITE LOCATION: Newnan, Georgia  
DRILLER: Isaac Young  
RIG TYPE: T-300 Rotosonic  
METHOD: Rotosonic  
WATER 1ST ENCOUNTERED: 35' BGS  
WATER AFTER 48 HOURS: 11.21' BGS

Core Photos



59-69' As above except more competent rock. Iron staining and fractures present (6/10)

69-79' As above except no iron staining (9/10)



**MATERIALS:**

GROUT: Bentonite Grout  
MANUFACTURER: AquaGuard

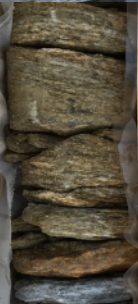
BENTONITE SEAL: 3/8" Bentonite Pellets  
MANUFACTURER: Pel-Plug

FILTER PACK SAND: 20/30 Mesh  
MANUFACTURER: Filter Media

WELL SCREEN: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line  
SLOT SIZE: 0.010-Inch Slot

WELL CASING: Sch. 40 - 2" PVC  
MANUFACTURER: Silver-Line

TOC - Top of Casing  
ID - Inside Diameter; OD - Outside Diameter  
MSL - Mean Sea Level  
BGS - Below Ground Surface

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div><br/>ATLANTIC COAST CONSULTING, INC.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <div>YAMW-5</div> <div>BORING ID</div>                                                                                                                                                                                                                                            |  |
| <div>PROJECT: Plant Yates</div> <div>TOTAL DEPTH: 90.66 ft. BTOC</div> <div>DATE BEGIN: 12-Nov-2019</div> <div>DATE COMPLETE: 13-Nov-2019</div> <div>INSTALLED BY: Cascade</div> <div>SUPERVISED BY: Ryan Walker</div> <div>WATER 1ST ENCOUNTERED: 35' BGS</div> <div>WATER AFTER 48 HOURS: 11.21' BGS</div>                                                                                                                                                                                                                                                                              |  | <div>PROJECT NO.: I054-110</div> <div>SITE LOCATION: Newnan, Georgia</div> <div>DRILLER: Isaac Young</div> <div>RIG TYPE: T-300 Rotosonic</div> <div>METHOD: Rotosonic</div>                                                                                                      |  |
| <div><div><div>Elevation MSL</div><div>Depth BGS</div><div>80</div><div>81</div><div>82</div><div>83</div><div>84</div><div>85</div><div>86</div><div>698.56</div><div>87.34</div><div>Elevation</div><div>Depth</div><div>88</div><div>89</div><div>90</div><div>91</div><div>92</div><div>93</div><div>94</div><div>95</div><div>96</div><div>97</div><div>98</div><div>99</div><div>100</div><div>101</div><div>102</div><div>103</div><div>104</div><div>6.00" OD</div></div><div><div>Bottom of Screen</div><div>Silt Trap (0.3')</div></div></div>                                  |  | <div>79-87' As above except rock slightly weathered. Iron staining and some fractures present (6/10)</div> <div>Total well depth 87.64' BGS</div> <div><div>Core Photos</div><div></div></div> |  |
| <div>MATERIALS:</div> <div><div>GROUT:</div><div>MANUFACTURER:</div><div>BENTONITE SEAL:</div><div>MANUFACTURER:</div><div>FILTER PACK SAND:</div><div>MANUFACTURER:</div><div>WELL SCREEN:</div><div>MANUFACTURER:</div><div>SLOT SIZE:</div><div>WELL CASING:</div><div>MANUFACTURER:</div></div> <div><div>Bentonite Grout</div><div>AquaGuard</div><div>3/8" Bentonite Pellets</div><div>Pei-Plug</div><div>20/30 Mesh</div><div>Filter Media</div><div>Sch. 40 - 2" PVC</div><div>Silver-Line</div><div>0.010-Inch Slot</div><div>Sch. 40 - 2" PVC</div><div>Silver-Line</div></div> |  | <div><div>TOC - Top of Casing</div><div>ID - Inside Diameter; OD - Outside Diameter</div><div>MSL - Mean Sea Level</div><div>BGS - Below Ground Surface</div></div>                                                                                                               |  |



**COPY**

Bond Number K08315607

**Performance Bond For Water Well Contractors And Drillers**

Name of Water Well Contractor or Driller Michael C. Rice/Cascade Drilling, L.P.

Know All Men By These Present

That we Michael C. Rice/Cascade Drilling, L.P. AND ANY AND ALL EMPLOYEES, OFFICERS AND PARTNERS, as Principal, and Westchester Fire Insurance Company as Surety, are held and firmly bound unto the Director of the Environmental Protection Division (Director), Department of Natural Resources, State of Georgia and his or her Successor or Successors in office, as Obligee, in the full sum of **TWENTY THOUSAND AND NO/00 DOLLARS (\$20,000.00)** for the payment of which will and truly to be made, we bind ourselves, our heir, administrators, successors and assigns, jointly and severally, by the present.

WHEREAS, the WATER WELL STANDARDS ACT OF 1985 (Ga. Laws 1985, p. 1192) (the "ACT") requires that water well contractors and drillers file performance bonds with the director to ensure compliance with the ACT; and WHEREAS the above bound PRINCIPAL is subject to the terms and provisions of said ACT. NOW, THEREFORE, the conditions of this obligation are such that if the above bound PRINCIPAL shall fully and faithfully perform the duties and in all things comply with the procedures and standards set forth in the ACT as now and hereafter amended, and the rules and regulations promulgated pursuant thereto, including but not limited to the correction of any violation of such procedures and standards upon discovery, irrespective of whether such discovery is made before completion of any well subject to this bond, then this obligation shall be void; otherwise of full force and effect.

And Surety, for value received, agrees that no amendment to existing laws, rules or regulations, or adoption of new laws, rules or regulations shall in anyway discharge its obligation on this bond, and does hereby waive notice of any such amendment, adoption or modification.

This bond shall be effective from date of issuance and shall continue in effect until terminated by expiration, mutual agreement or cancellation upon sixty (60) days written notice to Principal and Obligee; provided that the rights of the obligee and beneficiaries under this bond which arose prior to such termination shall continue.

The bond is effective 9/20/13 and unless sooner terminated, this bond shall terminate June 30, 2015. In Witness Thereof the Principal and Surety have caused these present to be duly signed and sealed, this 20th day of, September 20 13.

Michael C. Rice/Cascade Drilling, L.P.

PRINCIPAL, BY \_\_\_\_\_ (L.S.) TITLE: \_\_\_\_\_  
Westchester Fire Insurance Company

SURETY BY: Roxana Palacios  
Roxana Palacios, Attorney-in-Fact

GEORGIA REGISTERED AGENT N/A SEAL:

Revised December 2012



**CLIENT'S COPY**

**SURETY BOND CONTINUATION CERTIFICATE**

TO: State of Georgia  
Division of Environmental Protection  
2 Martin Luther King Jr. Drive SE  
Suite 1252  
Atlanta, GA 30334

To be attached to and form a part of: Performance Bond for Well Contractors and Drillers

Principal on the Bond: Michael C. Rice/Cascade Drilling, L.P.

Surety Bond Number: K08315607

Bond Amount: Twenty Thousand and 00/100 Dollars ( \$20,000.00)

In consideration of the agreed premium charged for this bond, it is understood and agreed that the following change shall be made to this obligation:

**[ x ] CONTINUATION CERTIFICATE**

This certificate extends the life of the bond to June 30, 2017. It is executed upon the express condition that the surety's liability under said bond, together with this and all previous continuation certificates, shall not be cumulative and shall in no event exceed the amount specifically set forth in said bond or any existing certificate changing the amount of said bond.

Signed, sealed and dated this 26th day of May , 2015 .

Westchester Fire Insurance Company

By: Katie S

Katie Snider, Attorney-in-Fact

Surety of Record: Westchester Fire Insurance Company  
436 Walnut Street  
Philadelphia, PA 19106  
Phone: (415) 547-4513

Agent of Record: Kibble & Prentice, a USI Company  
601 Union Street, Suite 1000  
Seattle, WA 98101  
Phone: (206) 441-6300



# Power of Attorney

## WESTCHESTER FIRE INSURANCE COMPANY

Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such persons written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

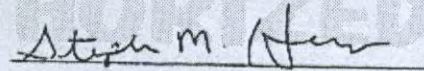
FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Does hereby nominate, constitute and appoint Heather Allen, Holly E Ulfers, Katie Snider, Nancy N Hill, Roxana Palacios, Steven W Palmer, all of the City of SEATTLE, Washington, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof in penalties not exceeding Fifteen million dollars & zero cents (\$15,000,000.00) and the execution of such writings in pursuance of these presents shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office,

IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 22 day of December 2014.

WESTCHESTER FIRE INSURANCE COMPANY

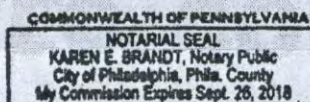


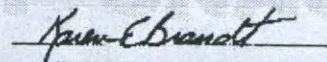
  
Stephen M. Haney, Vice President

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF PHILADELPHIA ss.

On this 22 day of December, AD. 2014 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M. Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.

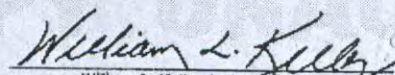


  
Notary Public

I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of which the foregoing is a substantially true and correct copy, is in full force and effect.

In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this 26<sup>th</sup> day of May, 2015.



  
William L. Kelly, Assistant Secretary

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER December 22, 2016.





**COPY**

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. **800031223**

dated effective June 30, 2017  
(MONTH-DAY-YEAR)

on behalf of Michael C. Rice and Cascade Drilling, L.P., any and all employees, officers and partners  
(PRINCIPAL)

and in favor of State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2019  
(MONTH-DAY-YEAR)

and ending on June 30, 2021  
(MONTH-DAY-YEAR)

Amount of bond Thirty Thousand and Zero/100 (\$30,000.00)

Description of bond Water Well Contractor Performance Bond

Premium: \$1,200.00

**PROVIDED:** That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on May 9, 2019  
(MONTH-DAY-YEAR)  
Atlantic Specialty Insurance Company

By  
Attorney-in-Fact Elizabeth R. Hahn

Parker, Smith & Feek, Inc.  
Agent

2233 112th Ave NE Bellevue, WA 98004  
Address of Agent

(425) 709-3600  
Telephone Number of Agent

## Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **sixty million dollars (\$60,000,000)** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-sixth day of October, 2017.

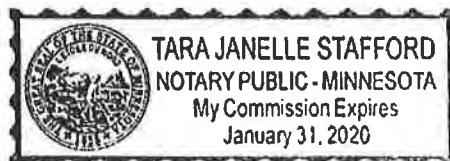
STATE OF MINNESOTA  
HENNEPIN COUNTY



By

Paul J. Brehm, Senior Vice President

On this twenty-sixth day of October, 2017, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.



Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 9 day of May, 2019

This Power of Attorney expires  
October 1, 2019



Christopher V. Jerry, Secretary

CONTINUATION  
CERTIFICATE

Atlantic Specialty Insurance Company

, Surety upon

a certain Bond No. 800033976

dated effective 09/27/2017  
(MONTH-DAY-YEAR)

on behalf of Ricky Davis / Cascade Drilling, L.P.  
(PRINCIPAL)

and in favor of Department of Natural Resources, State of Georgia  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on 06/30/2021  
(MONTH-DAY-YEAR)

and ending on 06/30/2023  
(MONTH-DAY-YEAR)

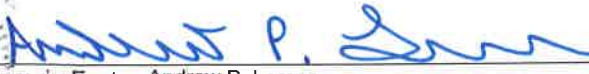
Amount of bond Thirty Thousand and 00/100 Dollars (\$30,000.00)

Description of bond Performance Bond for Water Well Contractors

**PROVIDED:** That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on April 12th, 2021  
(MONTH-DAY-YEAR)

Atlantic Specialty Insurance Company

By   
Attorney-in-Fact Andrew P. Larsen

Parker, Smith & Feek, Inc.

Agent  
2233 112th Ave NE Bellevue, WA 98004

Address of Agent

425-709-3600

Telephone Number of Agent



## Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Deanna M. French, Susan B. Larson, Elizabeth R. Hahn, Jana M. Roy, Scott McGilvray, Mindee L. Rankin, Ronald J. Lange, John R. Claeys, Roger Kaltenbach, Guy Armfield, Scott Fisher, Andrew P. Larsen, Nicholas Fredrickson, William M. Smith, Derek Sabo, Charla M. Boadle**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-seventh day of April, 2020.

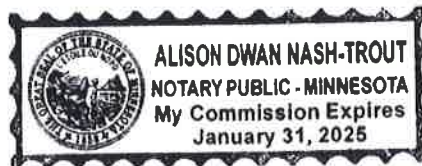
STATE OF MINNESOTA  
HENNEPIN COUNTY



By

Paul J. Brehm, Senior Vice President

On this twenty-seventh day of April, 2020, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

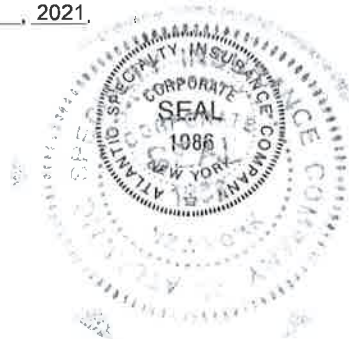


Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 12 day of April, 2021.

This Power of Attorney expires  
January 31, 2025



Kara Barrow, Secretary

CONTINUATION  
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987  
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.  
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division  
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2021  
(MONTH-DAY-YEAR)

and ending on June 30, 2022  
(MONTH-DAY-YEAR)

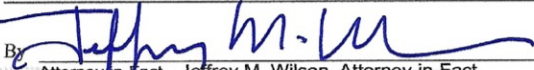
Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

**PROVIDED:** That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on 05/06/2021  
(MONTH-DAY-YEAR)  
SAFECO Insurance Company of America  
175 Berkeley Street, Boston, MA 02116

By   
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.  
Agent

2211 7th Avenue South, Birmingham, AL 35233  
Address of Agent

(205) 252-9871  
Telephone Number of Agent





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

American States Insurance Company  
First National Insurance Company of America  
General Insurance Company of America  
Safeco Insurance Company of America

Certificate No: **8205019-016032**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That American States Insurance Company is a corporation duly organized under the laws of the State of Indiana, that First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America are corporations duly organized under the laws of the State of New Hampshire (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alisa B. Ferris; Anna Childress; Jeffrey M. Wilson; Mark W. Edwards II; Richard H. Mitchell; Robert R. Freel; Sam Audia; William M. Smith

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF**, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.

American States Insurance Company  
First National Insurance Company of America  
General Insurance Company of America  
Safeco Insurance Company of America

By: David M. Carey  
David M. Carey, Assistant Secretary



State of PENNSYLVANIA  
County of MONTGOMERY ss

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 28, 2025  
Commission number 1126044  
Member, Pennsylvania Association of Notaries

By: Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-law and Authorizations of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America, which are now in full force and effect reading as follows:

### ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorney-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

**Certificate of Designation** - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of American States Insurance Company, First National Insurance Company of America, General Insurance Company of America, and Safeco Insurance Company of America do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 6th day of May, 2021.



By: Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.



Bond Number: 106717740**Performance Bond For Water Well Contractors**Name of Water Well Contractor TONY BETTS db/a - DBA BETTS ENVIRONMENTAL RECOVERY, AND BLAKE CABIT, MALCOM SANDERS, /

Know All Men By These Presents

That we **TONY BETTS** and DBA BETTS ENVIRONMENTAL RECOVERY, AND BLAKE CABIT, MALCOM SANDERS, AND RYAN MCCORMACK any and all employees, officers and partners (collectively

hereinafter, **Principal**), and we **Travelers Casualty and Surety Company of America**, duly organized under the laws of the State of **CONNECTICUT** (hereinafter, **Surety**), are held and firmly bound unto the Director of the Environmental Protection Division, Department of Natural Resources, State of Georgia (**Director**) and his or her successor or successors in office, as **Obligee**, in the full sum of **THIRTY THOUSAND DOLLARS (\$30,000.00)** for the payment of which will and truly to be made, the Principal and Surety bind ourselves, our heirs, administrators, successors and assigns, jointly and severally, by these presents.

WHEREAS, the Water Well Standards Act of 1985 (O.C.G.A. §§ 12-5-120 *et seq.*) (the Act) requires that a Water Well Contractor, as that term is defined by the Act, have a performance bond with the Director to ensure compliance with the Act; and WHEREAS the above bound Principal is subject to the terms and provisions of said Act.

NOW, THEREFORE, the conditions of this obligation are such that if the above bound Principal shall fully and faithfully perform the duties and in all things comply with the procedures and standards set forth in the Act as now and hereafter amended, and the rules and regulations promulgated pursuant thereto, including but not limited to the correction of any violation of such procedures and standards upon discovery, irrespective of whether such discovery is made before completion of any well subject to this bond, then this obligation shall be void; otherwise it shall remain in full force and effect.

And Surety, for value received, agrees that no amendment to existing laws, rules or regulations, or adoption of new laws, rules or regulations shall in anyway discharge its obligation on this bond, and does hereby waive notice of any such amendment, adoption or modification.

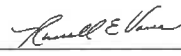
This bond shall be effective from the 30 day of June, 2023 and shall continue in effect until June 30, 2025, unless sooner terminated by mutual agreement of Principal and Surety, provided that no such termination may be made unless sixty (60) days' prior written notice is made to the Director. In the event of such termination, the rights of the Director as Obligee and beneficiaries under this bond which arose prior to such termination shall continue.

IN WITNESS THEREOF the Principal and Surety have caused these present to be duly signed and sealed, this the 01 day of April, 2023.

**Principal**  
**TONY BETTS**


Print name: **Tony Betts**Title: **CEO**

**Surety**  
**Travelers Casualty and Surety Company of America**


Print name: **Russell E. Vance**Title: **Attorney-in-Fact**



**Travelers Casualty and Surety Company of America**  
**Travelers Casualty and Surety Company**  
**St. Paul Fire and Marine Insurance Company**  
**Farmington Casualty Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, St. Paul Fire and Marine Insurance Company, and Farmington Casualty Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Russell E. Vance**, of **Hartford, CT**, their true and lawful Attorney(s)-in-Fact, to sign, execute, seal and acknowledge the following bond:

**Surety Bond No.: 106717740**

**Principal: TONY BETTS d/b/a - DBA BETTS ENVIRONMENTAL RECOVERY, AND  
 BLAKE CABIT, MALCOM SANDERS, AND RYAN MCCORMACK**

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this **21st** day of **April, 2021**.



State of Connecticut

City of Hartford ss.

By:   
 Robert L. Raney, Senior Vice President

On this the **21st** day of **April, 2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2026**



  
 Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 01 day of April, 2023.



  
 Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.**  
**Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**

Mr. Joju Abraham  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, Georgia 30308

Arcadis U.S., Inc.  
1210 Premier Drive  
Suite 200  
Chattanooga  
Tennessee 37421  
Tel 423 756 7193  
Fax 423 756 7197  
[www.arcadis-us.com](http://www.arcadis-us.com)

Subject:  
Monitoring Well and Piezometer Surveys  
Plant Yates, 708 Dyer Road, Newnan, Georgia

Date:  
June 29, 2020

Dear Mr. Abraham:

Contact:  
Cory Williams, PLS

Attached is a copy of the reports for the Monitoring Well and Piezometer Surveys for the Phase I and Phase II Sites at Plant Yates. The Phase I and Phase II sites surveyed include the following specific areas:

Phone:  
919.415.2348

- AMA, Ash Management Area
- AP-1, Former Ash Pond 1
- AP-2, Ash Pond 2
- Gypsum Landfill

Email:  
[cory.williams@arcadis.com](mailto:cory.williams@arcadis.com)

We appreciate the opportunity to work with Georgia Power and look forward to working with you in the future. If you need additional information, please feel free to contact me.

Our ref:  
30054533

Sincerely,

Arcadis U.S., Inc.



A. Cory Williams, PLS  
Survey Department Manager

#### Attachments

Copies:  
Geoffrey Gay, PE  
Rick Helmadollar, PE  
A. Lee Robertson IV, PLS

## DESCRIPTION AND SCOPE

The task included performing horizontal and vertical field survey locations of the existing well networks (including all monitoring wells and piezometers). The Arcadis field survey team obtained horizontal and vertical locations for the top of the well casing (TOC) and surveyed the nail located on the concrete pad around the well. Where no nail was present, the field crew surveyed the top of the concrete well pad. The Arcadis field team utilized a combination of Leica GS16 Global Positioning System (GPS) with traditional Leica MS60 Robotic Total Station field survey equipment and methods to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level. Next, we began from a benchmark set, by utilizing GPS Static Session with an OPUS solution and subsequently verified via the eGPS RTN Network and ran through all well and piezometer locations to close on the beginning benchmark to confirm accuracy. All vertical elevations are referenced to NAVD1988, US Survey Feet and meet an accuracy standard of 0.01 foot.

See the attached exhibits detailing the Monitoring Well and Piezometer surveyed locations for each Phase I and Phase II site.

## SUMMARY

The field survey crew performed the survey in June 2020 with the findings or observations summarized below:

- The ground elevation survey location was taken adjacent to the concrete base point (PK, Disk or Chiseled X). Note that at some locations, the concrete base was buried under soil; consequently, the ground elevation is higher than the concrete base point location.
- The horizontal location for monitoring well GWC-6R at the Gypsum Landfill is approximately +/-51 feet southeasterly of the provided coordinate location as detailed in "Georgia Power Company Plant Yates, Private Industrial Landfill, Permit No. 038-014D (I), Replacement Monitoring Well GWC-6R Certification, ES1703", dated July 2010. See attached Photograph Log.

### Monitoring Well Summary

| Site                      | Monitoring Wells | Piezometers |
|---------------------------|------------------|-------------|
| AMA = Ash Management Area | 25               | 8           |
| AP-1 = Former Ash Pond 1  | 5                | 5           |
| AP-2 = Ash Pond 2         | 14               | 8           |
| Gypsum Landfill           | 7                | 0           |

## CERTIFICATION

I, A. Lee Robertson IV, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

A. Lee Robertson IV

DATE: June 29, 2020



Digitally signed by A Lee  
Robertson IV  
Reason: Revised Yates  
Date: 2020.08.06 09:22:42  
-04'00'

A. Lee Robertson IV, ARM, PLS, PSM  
1301 Riverplace Blvd., Suite 700  
Jacksonville, FL 32207  
904.493.8589



# EXHIBIT 1



## Plant Yates – AMA Monitoring Well and Piezometer Surveys

| Monument  | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|-----------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|           |                     |                  | Northing                                    | Easting    |                   |                   |
| YGWA-4I   | Casing              | 784.21           | 1254436.68                                  | 2075455.62 | 33° 26' 47.432" N | 84° 53' 29.831" W |
|           | Disk                | 782.00           | 1254436.75                                  | 2075456.65 |                   |                   |
|           | Ground              | 781.9            |                                             |            |                   |                   |
| YGWA-5I   | Casing              | 784.54           | 1254399.95                                  | 2076218.86 | 33° 26' 47.122" N | 84° 53' 20.821" W |
|           | Disk                | 782.21           | 1254400.71                                  | 2076219.39 |                   |                   |
|           | Ground              | 782.1            |                                             |            |                   |                   |
| YGWA-5D   | Casing              | 784.53           | 1254396.67                                  | 2076223.63 | 33° 26' 47.089" N | 84° 53' 20.764" W |
|           | Disk                | 782.16           | 1254397.45                                  | 2076224.30 |                   |                   |
|           | Ground              | 781.9            |                                             |            |                   |                   |
| YGWA-17S  | Casing              | 783.05           | 1257602.79                                  | 2076758.31 | 33° 27' 18.846" N | 84° 53' 14.717" W |
|           | PK Nail             | 780.14           | 1257603.70                                  | 2076758.38 |                   |                   |
|           | Ground              | 780.2            |                                             |            |                   |                   |
| YGWA-18S  | Casing              | 790.57           | 1257116.05                                  | 2077015.25 | 33° 27' 14.048" N | 84° 53' 11.644" W |
|           | PK Nail             | 787.69           | 1257116.98                                  | 2077015.60 |                   |                   |
|           | Ground              | 787.6            |                                             |            |                   |                   |
| YGWA-18I  | Casing              | 790.57           | 1257090.05                                  | 2077015.82 | 33° 27' 13.791" N | 84° 53' 11.635" W |
|           | PK Nail             | 787.90           | 1257094.38                                  | 2077023.55 |                   |                   |
|           | Ground              | 787.9            |                                             |            |                   |                   |
| YGWA-20S  | Casing              | 767.12           | 1255531.55                                  | 2077410.37 | 33° 26' 58.399" N | 84° 53' 06.851" W |
|           | PK Nail             | 764.41           | 1255531.12                                  | 2077409.22 |                   |                   |
|           | Ground              | 764.6            |                                             |            |                   |                   |
| YGWA-21I  | Casing              | 783.70           | 1255538.27                                  | 2076768.14 | 33° 26' 58.421" N | 84° 53' 14.432" W |
|           | PK Nail             | 780.62           | 1255537.44                                  | 2076768.81 |                   |                   |
|           | Ground              | 780.8            |                                             |            |                   |                   |
| YGWC-23S  | Casing              | 764.91           | 1256366.93                                  | 2074734.07 | 33° 27' 06.479" N | 84° 53' 38.506" W |
|           | PK Nail             | 761.74           | 1256367.40                                  | 2074734.44 |                   |                   |
|           | Ground              | 762.0            |                                             |            |                   |                   |
| YGWC-24SA | Casing              | 765.00           | 1258907.98                                  | 2073924.81 | 33° 27' 31.563" N | 84° 53' 48.268" W |
|           | PK Nail             | 762.08           | 1258909.02                                  | 2073924.05 |                   |                   |
|           | Ground              | 762.0            |                                             |            |                   |                   |
| YGWC-36   | Casing              | 739.61           | 1258514.02                                  | 2073770.14 | 33° 27' 27.654" N | 84° 53' 50.061" W |
|           | PK Nail             | 737.04           | 1258513.74                                  | 2073771.01 |                   |                   |
|           | Ground              | 736.9            |                                             |            |                   |                   |
| YGWC-49   | Casing              | 782.73           | 1259375.23                                  | 2074337.51 | 33° 27' 36.214" N | 84° 53' 43.435" W |
|           | PK Nail             | 780.11           | 1259375.91                                  | 2074337.14 |                   |                   |
|           | Ground              | 780.1            |                                             |            |                   |                   |



**EXHIBIT 1****Plant Yates – AMA Monitoring Well and Piezometer Surveys**

| Monument       | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|----------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|                |                     |                  | Northing                                    | Easting    |                   |                   |
| <b>YGWA-6S</b> | Casing              | 782.47           | 1260484.87                                  | 2074786.49 | 33° 27' 47.223" N | 84° 53' 38.227" W |
|                | Disk                | 780.06           | 1260485.50                                  | 2074785.70 |                   |                   |
|                | Ground              | 779.8            |                                             |            |                   |                   |
| <b>YGWA-6I</b> | Casing              | 782.73           | 1260490.02                                  | 2074790.49 | 33° 27' 47.275" N | 84° 53' 38.181" W |
|                | Disk                | 780.36           | 1260490.74                                  | 2074789.66 |                   |                   |
|                | Ground              | 780.2            |                                             |            |                   |                   |
| <b>YAMW-1</b>  | Casing              | 743.83           | 1258602.12                                  | 2073814.55 | 33° 27' 28.529" N | 84° 53' 49.543" W |
|                | PK Nail             | 741.11           | 1258602.93                                  | 2073815.29 |                   |                   |
|                | Ground              | 740.9            |                                             |            |                   |                   |
| <b>PZ-04S</b>  | Casing              | 784.25           | 1254442.86                                  | 2075454.20 | 33° 26' 47.493" N | 84° 53' 29.848" W |
|                | Disk                | 781.94           | 1254443.16                                  | 2075455.15 |                   |                   |
|                | Ground              | 781.8            |                                             |            |                   |                   |
| <b>PZ-05S</b>  | Casing              | 784.64           | 1254404.42                                  | 2076211.43 | 33° 26' 47.165" N | 84° 53' 20.909" W |
|                | Disk                | 782.31           | 1254405.12                                  | 2076212.12 |                   |                   |
|                | Ground              | 782.2            |                                             |            |                   |                   |
| <b>PZ-06D</b>  | Casing              | 782.02           | 1260480.15                                  | 2074782.68 | 33° 27' 47.176" N | 84° 53' 38.272" W |
|                | Disk                | 779.65           | 1260480.84                                  | 2074782.04 |                   |                   |
|                | Ground              | 779.5            |                                             |            |                   |                   |
| <b>PZ-24IA</b> | Casing              | 764.65           | 1258910.76                                  | 2073930.07 | 33° 27' 31.591" N | 84° 53' 48.206" W |
|                | PK Nail             | 761.89           | 1258911.68                                  | 2073929.64 |                   |                   |
|                | Ground              | 761.8            |                                             |            |                   |                   |
| <b>PZ-35</b>   | Casing              | 743.81           | 1258593.16                                  | 2073805.60 | 33° 27' 28.440" N | 84° 53' 49.649" W |
|                | PK Nail             | 741.09           | 1258593.85                                  | 2073806.06 |                   |                   |
|                | Ground              | 740.9            |                                             |            |                   |                   |
| <b>PZ-48</b>   | Casing              | 779.83           | 1259868.04                                  | 2074528.00 | 33° 27' 41.103" N | 84° 53' 41.228" W |
|                | PK Nail             | 777.29           | 1259868.75                                  | 2074527.27 |                   |                   |
|                | Ground              | 777.2            |                                             |            |                   |                   |
| <b>YGWA-39</b> | Casing              | 818.19           | 1255717.13                                  | 2073865.58 | 33° 26' 59.990" N | 84° 53' 48.702" W |
|                | PK Nail             | 815.58           | 1255717.96                                  | 2073865.39 |                   |                   |
|                | Ground              | 815.6            |                                             |            |                   |                   |
| <b>YGWA-40</b> | Casing              | 815.73           | 1255791.95                                  | 2073431.34 | 33° 27' 00.700" N | 84° 53' 53.833" W |
|                | PK Nail             | 813.45           | 1255792.83                                  | 2073431.58 |                   |                   |
|                | Ground              | 813.5            |                                             |            |                   |                   |

# EXHIBIT 1



## Plant Yates – AMA Monitoring Well and Piezometer Surveys

| Monument                                                                                                                                                                                   | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|                                                                                                                                                                                            |                     |                  | Northing                                    | Easting    |                   |                   |
| YGWC-38                                                                                                                                                                                    | Casing              | 799.69           | 1256108.38                                  | 2074446.80 | 33° 27' 03.901" N | 84° 53' 41.875" W |
|                                                                                                                                                                                            | PK Nail             | 797.24           | 1256108.41                                  | 2074446.02 |                   |                   |
|                                                                                                                                                                                            | Ground              | 797.1            |                                             |            |                   |                   |
| YGWC-41                                                                                                                                                                                    | Casing              | 803.92           | 1256510.62                                  | 2073274.41 | 33° 27' 07.799" N | 84° 53' 55.745" W |
|                                                                                                                                                                                            | PK Nail             | 801.23           | 1256509.74                                  | 2073274.29 |                   |                   |
|                                                                                                                                                                                            | Ground              | 801.1            |                                             |            |                   |                   |
| YGWC-42                                                                                                                                                                                    | Casing              | 797.86           | 1256882.87                                  | 2073326.52 | 33° 27' 11.486" N | 84° 53' 55.161" W |
|                                                                                                                                                                                            | PK Nail             | 795.34           | 1256881.68                                  | 2073326.58 |                   |                   |
|                                                                                                                                                                                            | Ground              | 795.1            |                                             |            |                   |                   |
| YGWC-43                                                                                                                                                                                    | Casing              | 744.96           | 1257547.41                                  | 2073199.65 | 33° 27' 18.052" N | 84° 53' 56.714" W |
|                                                                                                                                                                                            | PK Nail             | 742.50           | 1257546.78                                  | 2073200.55 |                   |                   |
|                                                                                                                                                                                            | Ground              | 742.3            |                                             |            |                   |                   |
| PZ-37                                                                                                                                                                                      | Casing              | 760.78           | 1256471.14                                  | 2074699.59 | 33° 27' 07.508" N | 84° 53' 38.922" W |
|                                                                                                                                                                                            | PK Nail             | 758.10           | 1256471.89                                  | 2074700.06 |                   |                   |
|                                                                                                                                                                                            | Ground              | 758.0            |                                             |            |                   |                   |
| PZ-51                                                                                                                                                                                      | Casing              | 744.30           | 1257595.80                                  | 2073182.55 | 33° 27' 18.529" N | 84° 53' 56.920" W |
|                                                                                                                                                                                            | PK Nail             | 741.23           | 1257595.53                                  | 2073181.53 |                   |                   |
|                                                                                                                                                                                            | Ground              | 741.3            |                                             |            |                   |                   |
| YAMW-2                                                                                                                                                                                     | Casing              | 781.04           | 1256780.59                                  | 2072924.89 | 33° 27' 10.446" N | 84° 53' 59.893" W |
|                                                                                                                                                                                            | PK Nail             | 777.81           | 1256781.38                                  | 2072926.79 |                   |                   |
|                                                                                                                                                                                            | Ground              | 777.9            |                                             |            |                   |                   |
| YAMW-3                                                                                                                                                                                     | Casing              | 796.05           | 1256915.25                                  | 2073345.21 | 33° 27' 11.808" N | 84° 53' 54.943" W |
|                                                                                                                                                                                            | PK Nail             | 792.98           | 1256914.96                                  | 2073344.24 |                   |                   |
|                                                                                                                                                                                            | Ground              | 793.2            |                                             |            |                   |                   |
| YAMW-4                                                                                                                                                                                     | Casing              | 805.59           | 1256532.64                                  | 2073280.71 | 33° 27' 08.018" N | 84° 53' 55.673" W |
|                                                                                                                                                                                            | PK Nail             | 802.60           | 1256532.72                                  | 2073281.78 |                   |                   |
|                                                                                                                                                                                            | Ground              | 802.6            |                                             |            |                   |                   |
| YAMW-5                                                                                                                                                                                     | Casing              | 788.90           | 1256140.21                                  | 2074486.69 | 33° 27' 04.219" N | 84° 53' 41.407" W |
|                                                                                                                                                                                            | PK Nail             | 785.87           | 1256139.54                                  | 2074487.44 |                   |                   |
|                                                                                                                                                                                            | Ground              | 785.9            |                                             |            |                   |                   |
| Notes:<br>NAD83(2011) coordinates established by utilizing eGPS VRS & OPUS Solutions<br>Elevations derived from Arcadis BM#1 (El. 758.24)<br>Elevations & coordinates are U.S. Survey feet |                     |                  |                                             |            |                   |                   |

**EXHIBIT 2****Plant Yates – AP-1 Monitoring Well and Piezometer Surveys**

| Monument        | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|-----------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|                 |                     |                  | Northing                                    | Easting    |                   |                   |
| <b>YGWA-47</b>  | Casing              | 758.22           | 1262411.84                                  | 2071818.05 | 33° 28' 06.081" N | 84° 54' 13.428" W |
|                 | PK Nail             | 755.73           | 1262410.74                                  | 2071817.99 |                   |                   |
|                 | Ground              | 755.6            |                                             |            |                   |                   |
| <b>YGWC-44</b>  | Casing              | 758.35           | 1261874.34                                  | 2071219.39 | 33° 28' 00.721" N | 84° 54' 20.449" W |
|                 | PK Nail             | 755.7            | 1261874.44                                  | 2071218.47 |                   |                   |
|                 | Ground              | 755.5            |                                             |            |                   |                   |
| <b>YGWC-45</b>  | Casing              | 719.36           | 1261668.95                                  | 2070912.60 | 33° 27' 58.667" N | 84° 54' 24.053" W |
|                 | PK Nail             | 716.72           | 1261668.87                                  | 2070911.87 |                   |                   |
|                 | Ground              | 716.5            |                                             |            |                   |                   |
| <b>YGWC-52</b>  | Casing              | 755.86           | 1262145.22                                  | 2071464.36 | 33° 28' 03.418" N | 84° 54' 17.580" W |
|                 | PK Nail             | 752.99           | 1262144.65                                  | 2071465.21 |                   |                   |
|                 | Ground              | 752.9            |                                             |            |                   |                   |
| <b>YGWC-46A</b> | Casing              | 733.04           | 1260994.59                                  | 2070970.30 | 33° 27' 52.000" N | 84° 54' 23.316" W |
|                 | PK Nail             | 730.16           | 1260994.40                                  | 2070971.40 |                   |                   |
|                 | Ground              | 730.1            |                                             |            |                   |                   |
| <b>PZ-09S</b>   | Casing              | 712.08           | 1262003.49                                  | 2070720.43 | 33° 28' 01.963" N | 84° 54' 26.350" W |
|                 | Disk                | 709.90           | 1262003.23                                  | 2070721.54 |                   |                   |
|                 | Ground              | 709.8            |                                             |            |                   |                   |
| <b>PZ-09I</b>   | Casing              | 712.13           | 1261995.81                                  | 2070720.09 | 33° 28' 01.887" N | 84° 54' 26.353" W |
|                 | Disk                | 709.92           | 1261995.51                                  | 2070721.11 |                   |                   |
|                 | Ground              | 709.8            |                                             |            |                   |                   |
| <b>PZ-10S</b>   | Casing              | 700.43           | 1260802.29                                  | 2070552.32 | 33° 27' 50.068" N | 84° 54' 28.233" W |
|                 | Disk                | 698.02           | 1260802.21                                  | 2070553.31 |                   |                   |
|                 | Ground              | 698.1            |                                             |            |                   |                   |
| <b>PZ-10I</b>   | Casing              | 700.25           | 1260809.64                                  | 2070551.98 | 33° 27' 50.068" N | 84° 54' 28.233" W |
|                 | Disk                | 697.96           | 1260809.55                                  | 2070552.97 |                   |                   |
|                 | Ground              | 697.8            |                                             |            |                   |                   |
| <b>PZ-53</b>    | Casing              | 732.90           | 1260964.50                                  | 2070920.38 | 33° 27' 51.698" N | 84° 54' 23.902" W |
|                 | PK Nail             | 729.99           | 1260964.35                                  | 2070921.22 |                   |                   |
|                 | Ground              | 729.9            |                                             |            |                   |                   |

**Notes:**

NAD83(2011) coordinates established by utilizing eGPS VRS &amp; OPUS Solutions

Elevations derived from Arcadis BM#1 (El. 758.24)

Elevations &amp; coordinates are U.S. Survey feet

# EXHIBIT 3



## Plant Yates – AP-2 Monitoring Well and Piezometer Surveys

| Monument | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|----------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|          |                     |                  | Northing                                    | Easting    |                   |                   |
| YGWA-1I  | Casing              | 836.60           | 1256876.13                                  | 2070097.91 | 33° 27' 11.193" N | 84° 54' 33.266" W |
|          | Disk                | 834.33           | 1256876.76                                  | 2070098.84 |                   |                   |
|          | Ground              | 834.3            |                                             |            |                   |                   |
| YGWA-1D  | Casing              | 837.25           | 1256867.34                                  | 2070104.61 | 33° 27' 11.106" N | 84° 54' 33.186" W |
|          | Disk                | 835.04           | 1256868.01                                  | 2070105.52 |                   |                   |
|          | Ground              | 834.9            |                                             |            |                   |                   |
| YGWA-2I  | Casing              | 866.25           | 1256144.08                                  | 2070790.49 | 33° 27' 03.999" N | 84° 54' 25.030" W |
|          | Disk                | 864.2            | 1256144.35                                  | 2070791.29 |                   |                   |
|          | Ground              | 864.0            |                                             |            |                   |                   |
| YGWA-3I  | Casing              | 796.55           | 1256405.20                                  | 2072024.20 | 33° 27' 06.669" N | 84° 54' 10.492" W |
|          | Disk                | 794.34           | 1256405.65                                  | 2072025.23 |                   |                   |
|          | Ground              | 794.0            |                                             |            |                   |                   |
| YGWA-3D  | Casing              | 796.78           | 1256399.94                                  | 2072026.21 | 33° 27' 06.617" N | 84° 54' 10.468" W |
|          | Disk                | 794.39           | 1256400.26                                  | 2072027.12 |                   |                   |
|          | Ground              | 794.1            |                                             |            |                   |                   |
| YGWA-14S | Casing              | 748.76           | 1257828.64                                  | 2072537.24 | 33° 27' 20.788" N | 84° 54' 04.555" W |
|          | Disk                | 746.58           | 1257829.68                                  | 2072537.61 |                   |                   |
|          | Ground              | 746.8            |                                             |            |                   |                   |
| YGWA-30I | Casing              | 762.58           | 1258421.86                                  | 2071107.11 | 33° 27' 26.556" N | 84° 54' 21.485" W |
|          | PK Nail             | 759.95           | 1258421.69                                  | 2071106.13 |                   |                   |
|          | Ground              | 760.1            |                                             |            |                   |                   |
| YGWC-26S | Casing              | 716.28           | 1259734.66                                  | 2070615.87 | 33° 27' 39.510" N | 84° 54' 27.393" W |
|          | PK Nail             | 713.17           | 1259734.57                                  | 2070614.87 |                   |                   |
|          | Ground              | 713.1            |                                             |            |                   |                   |
| YGWC-26I | Casing              | 715.91           | 1259725.79                                  | 2070613.56 | 33° 27' 39.422" N | 84° 54' 27.420" W |
|          | PK Nail             | 713.21           | 1259725.80                                  | 2070612.71 |                   |                   |
|          | Ground              | 713.1            |                                             |            |                   |                   |
| YGWC-27S | Casing              | 716.52           | 1259417.12                                  | 2070454.17 | 33° 27' 36.357" N | 84° 54' 29.275" W |
|          | PK Nail             | 713.27           | 1259416.33                                  | 2070454.96 |                   |                   |
|          | Ground              | 713.0            |                                             |            |                   |                   |
| YGWC-27I | Casing              | 716.19           | 1259423.73                                  | 2070460.89 | 33° 27' 36.423" N | 84° 54' 29.196" W |
|          | PK Nail             | 713.35           | 1259423.32                                  | 2070461.64 |                   |                   |
|          | Ground              | 713.2            |                                             |            |                   |                   |
| YGWC-28S | Casing              | 717.95           | 1259218.37                                  | 2070322.23 | 33° 27' 34.381" N | 84° 54' 30.816" W |
|          | PK Nail             | 715.09           | 1259217.72                                  | 2070323.07 |                   |                   |
|          | Ground              | 715.0            |                                             |            |                   |                   |

# EXHIBIT 3



## Plant Yates – AP-2 Monitoring Well and Piezometer Surveys

| Monument | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|----------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|          |                     |                  | Northing                                    | Easting    |                   |                   |
| YGWC-28I | Casing              | 717.93           | 1259226.47                                  | 2070328.27 | 33° 27' 34.462" N | 84° 54' 30.745" W |
|          | PK Nail             | 715.06           | 1259225.93                                  | 2070329.06 |                   |                   |
|          | Ground              | 715.0            |                                             |            |                   |                   |
| YGWC-29I | Casing              | 717.39           | 1258974.06                                  | 2070203.26 | 33° 27' 31.956" N | 84° 54' 32.199" W |
|          | PK Nail             | 714.94           | 1258973.51                                  | 2070203.93 |                   |                   |
|          | Ground              | 714.8            |                                             |            |                   |                   |
| PZ-01S   | Casing              | 836.84           | 1256871.97                                  | 2070101.24 | 33° 27' 11.152" N | 84° 54' 33.226" W |
|          | Disk                | 834.73           | 1256874.29                                  | 2070101.35 |                   |                   |
|          | Ground              | 834.5            |                                             |            |                   |                   |
| PZ-03S   | Casing              | 796.39           | 1256410.86                                  | 2072021.63 | 33° 27' 06.725" N | 84° 54' 10.523" W |
|          | Disk                | 794.31           | 1256411.38                                  | 2072022.63 |                   |                   |
|          | Ground              | 794.0            |                                             |            |                   |                   |
| PZ-13S   | Casing              | 807.79           | 1257849.98                                  | 2069810.25 | 33° 27' 20.807" N | 84° 54' 36.743" W |
|          | Disk                | 805.59           | 1257848.97                                  | 2069810.38 |                   |                   |
|          | Ground              | 805.5            |                                             |            |                   |                   |
| PZ-13I   | Casing              | 807.62           | 1257850.30                                  | 2069817.10 | 33° 27' 20.811" N | 84° 54' 36.662" W |
|          | Disk                | 805.42           | 1257849.17                                  | 2069817.19 |                   |                   |
|          | Ground              | 805.4            |                                             |            |                   |                   |
| PZ-14I   | Casing              | 749.06           | 1257826.16                                  | 2072542.59 | 33° 27' 20.764" N | 84° 54' 04.492" W |
|          | Disk                | 746.84           | 1257827.25                                  | 2072543.09 |                   |                   |
|          | Ground              | 747.2            |                                             |            |                   |                   |
| PZ-25S   | Casing              | 766.60           | 1258856.99                                  | 2073497.99 | 33° 27' 31.029" N | 84° 53' 53.301" W |
|          | PK Nail             | 763.77           | 1258857.85                                  | 2073498.45 |                   |                   |
|          | Ground              | 763.8            |                                             |            |                   |                   |
| PZ-25I   | Casing              | 766.38           | 1258860.75                                  | 2073491.10 | 33° 27' 31.065" N | 84° 53' 53.383" W |
|          | PK Nail             | 763.69           | 1258861.69                                  | 2073491.62 |                   |                   |
|          | Ground              | 763.8            |                                             |            |                   |                   |
| PZ-31S   | Casing              | 738.62           | 1258313.70                                  | 2072820.25 | 33° 27' 25.606" N | 84° 54' 01.256" W |
|          | PK Nail             | 736.04           | 1258312.79                                  | 2072820.01 |                   |                   |
|          | Ground              | 735.9            |                                             |            |                   |                   |

### Notes:

NAD83(2011) coordinates established by utilizing eGPS VRS & OPUS Solutions

Elevations derived from Arcadis BM#1 (El. 758.24)

Elevations & coordinates are U.S. Survey feet

**EXHIBIT 4**
**Plant Yates – Gypsum Landfill Monitoring Well and  
Piezometer Surveys**

| Monument      | Concrete<br>Base Point | NAVD88<br>Elevation | Georgia State Plane Grid<br>(NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|---------------|------------------------|---------------------|------------------------------------------------|------------|-------------------|-------------------|
|               |                        |                     | Northing                                       | Easting    |                   |                   |
| <b>GWA-2</b>  | Casing                 | 805.62              | 1261383.11                                     | 2073509.98 | 33° 27' 56.021" N | 84° 53' 53.370" W |
|               | Bolt                   | 803.25              | 1261383.21                                     | 2073507.93 |                   |                   |
|               | Ground                 | 803.1               |                                                |            |                   |                   |
| <b>GWC-1R</b> | Casing                 | 773.27              | 1261869.77                                     | 2073279.85 | 33° 28' 00.820" N | 84° 53' 56.127" W |
|               | Bolt                   | 770.69              | 1261868.10                                     | 2073281.57 |                   |                   |
|               | Ground                 | 770.5               |                                                |            |                   |                   |
| <b>GWC-2R</b> | Casing                 | 769.76              | 1261942.15                                     | 2072755.92 | 33° 28' 01.499" N | 84° 54' 02.317" W |
|               | Bolt                   | 767.13              | 1261944.58                                     | 2072756.60 |                   |                   |
|               | Ground                 | 766.8               |                                                |            |                   |                   |
| <b>GWC-3R</b> | Casing                 | 775.25              | 1261647.10                                     | 2072841.28 | 33° 27' 58.586" N | 84° 54' 01.285" W |
|               | Bolt                   | 772.32              | 1261646.62                                     | 2072843.63 |                   |                   |
|               | Ground                 | 772.2               |                                                |            |                   |                   |
| <b>GWC-4R</b> | Casing                 | 757.48              | 1262046.56                                     | 2072953.68 | 33° 28' 02.546" N | 84° 53' 59.992" W |
|               | Bolt                   | 754.88              | 1262044.70                                     | 2072955.00 |                   |                   |
|               | Ground                 | 754.6               |                                                |            |                   |                   |
| <b>GWC-5R</b> | Casing                 | 782.45              | 1261439.91                                     | 2073027.56 | 33° 27' 56.550" N | 84° 53' 59.069" W |
|               | Bolt                   | 779.69              | 1261441.13                                     | 2073029.78 |                   |                   |
|               | Ground                 | 780.0               |                                                |            |                   |                   |
| <b>GWC-6R</b> | Casing                 | 788.98              | 1261732.91                                     | 2073479.40 | 33° 27' 59.480" N | 84° 53' 53.760" W |
|               | Bolt                   | 785.95              | 1261730.98                                     | 2073478.53 |                   |                   |
|               | Ground                 | 785.6               |                                                |            |                   |                   |

**Notes:**

NAD83(2011) coordinates established by utilizing eGPS VRS & OPUS Solutions

Elevations derived from Arcadis BM#1 (El. 758.24)

Elevations & coordinates are U.S. Survey feet



Ms. Lauren Coker  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, GA 30308

Subject:  
Piezometer Survey – PZ-37D  
Plant Yates, 708 Dyer Road, Newnan, Georgia

Dear Ms. Coker:

Attached is a copy of the survey report for Piezometer PZ-37D at Plant Yates.

We appreciate the opportunity to work with Georgia Power and look forward to working with you in the future. If you need additional information, please feel free to contact me.

Sincerely,  
Arcadis U.S., Inc.



A. Cory Williams, RLS  
Survey Department Manager

Attachments

Copies:  
Geoffrey Gay, PE

Arcadis U.S., Inc.  
1210 Premier Drive  
Suite 200  
Chattanooga  
Tennessee 37421  
Tel 423 756 7193  
Fax 423 756 7197  
[www.arcadis-us.com](http://www.arcadis-us.com)

Date:  
May 11, 2021

Contact:  
Cory Williams, RLS

Phone:  
919.415.2348

Email:  
[cory.williams@arcadis.com](mailto:cory.williams@arcadis.com)

Our ref:  
30086734

## DESCRIPTION AND SCOPE

Arcadis performed horizontal and vertical field survey locations of the existing well networks, including all monitoring wells and piezometers. The Arcadis field survey team obtained horizontal and vertical locations for the top of the well casing (TOC) and surveyed the nail located on the concrete pad around the well. Where no nail was present, the field crew surveyed the top of the concrete well pad.

The Arcadis field team utilized a combination of Leica GS16 Global Positioning System (GPS) with traditional Leica MS60 Robotic Total Station field survey equipment and methods to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level.

Next, we began from a benchmark set by utilizing GPS Static Session with an OPUS solution and subsequently verified via the eGPS RTN Network and ran through all well and piezometer locations to close on the beginning benchmark to confirm accuracy. All vertical elevations are referenced to NAVD1988, US Survey Feet and meet an accuracy standard of 0.01 foot.

See the attached exhibit detailing the surveyed location for Piezometer PZ-37D.

## CERTIFICATION

I, A. Cory Williams, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

A. Cory Williams, RLS

DATE: May 11, 2021



A. Cory Williams, RLS  
1210 Premier Drive, Suite 200  
Chattanooga, TN 37421  
919.415.2348

**EXHIBIT 1****Plant Yates – AMA Monitoring Well and Piezometer Surveys**

| Monument                                                                                                                                                                                          | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|                                                                                                                                                                                                   |                     |                  | Northing                                    | Easting    |                   |                   |
| PZ-37D<br>(added May 2021)                                                                                                                                                                        | Casing              | 761.12           | 1256478.32                                  | 2074688.08 | 33° 27' 07.578" N | 84° 53' 39.058" W |
|                                                                                                                                                                                                   | Disk                | 758.87           | 1256479.07                                  | 2074688.90 |                   |                   |
|                                                                                                                                                                                                   | Ground              | 758.8            |                                             |            |                   |                   |
| <b>Notes:</b><br>NAD83(2011) coordinates established by utilizing eGPS VRS & OPUS Solutions<br>Elevations derived from Arcadis BM#1 (El. 758.24)<br>Elevations & coordinates are U.S. Survey feet |                     |                  |                                             |            |                   |                   |

Ms. Lauren Coker  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, GA 30308

Arcadis U.S., Inc.  
1210 Premier Drive  
Suite 200  
Chattanooga  
Tennessee 37421  
Tel 423 756 7193  
Fax 423 756 7197  
[www.arcadis-us.com](http://www.arcadis-us.com)

Subject:  
Piezometer Survey – PZ-52D, PZ-53D & YGWC-23S  
Plant Yates, 708 Dyer Road, Newnan, Georgia

Date:  
November 15, 2021

Dear Ms. Coker:

Contact:  
Cory Williams, RLS

Attached is a copy of the survey report for Piezometers PZ-52D, PZ-53D and YGWC-23S at Plant Yates.

Phone:  
919.415.2348

We appreciate the opportunity to work with Georgia Power and look forward to working with you in the future. If you need additional information, please feel free to contact me.

Email:  
[cory.williams@arcadis.com](mailto:cory.williams@arcadis.com)

Sincerely,

Our ref:  
30086734

Arcadis U.S., Inc.



A. Cory Williams, RLS  
Survey Department Manager

Attachments

Copies:  
Geoffrey Gay, PE

## DESCRIPTION AND SCOPE

Arcadis performed horizontal and vertical field survey locations of the existing well networks, including all monitoring wells and piezometers. The Arcadis field survey team obtained horizontal and vertical locations for the top of the well casing (TOC) and surveyed the nail located on the concrete pad around the well. Where no nail was present, the field crew surveyed the top of the concrete well pad.

The Arcadis field team utilized a combination of Leica GS16 Global Positioning System (GPS) with traditional Leica MS60 Robotic Total Station field survey equipment and methods to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level.

Next, we began from a benchmark set by utilizing GPS Static Session with an OPUS solution and subsequently verified via the eGPS RTN Network and ran through all well and piezometer locations to close on the beginning benchmark to confirm accuracy. All vertical elevations are referenced to NAVD1988, US Survey Feet and meet an accuracy standard of 0.01 foot.

See the attached exhibit detailing the surveyed location for Piezometers PZ-52D, PZ-53D and YGWC-23S.

## CERTIFICATION

I, A. Cory Williams, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

A. Cory Williams, RLS

DATE: November 15, 2021



A. Cory Williams, RLS  
1210 Premier Drive, Suite 200  
Chattanooga, TN 37421  
919.415.2348

## EXHIBIT 1

### Plant Yates – AMA Monitoring Well and Piezometer Surveys

| Monument                                                                                                                                                                                          | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude    | Longitude         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
|                                                                                                                                                                                                   |                     |                  | Northing                                    | Easting    |                   |                   |
| PZ-52D<br>(added 10/20/21)                                                                                                                                                                        | Casing              | 762.79           | 1256463.09                                  | 2074676.14 | 33° 27' 07.427" N | 84° 53' 39.198" W |
|                                                                                                                                                                                                   | PK Nail             | 760.04           | 1256463.75                                  | 2074675.04 |                   |                   |
|                                                                                                                                                                                                   | Ground              | 759.90           |                                             |            |                   |                   |
| PZ-53D<br>(added 10/20/21)                                                                                                                                                                        | Casing              | 762.80           | 1256463.09                                  | 2074676.14 | 33° 27' 07.427" N | 84° 53' 39.198" W |
|                                                                                                                                                                                                   | PK Nail             | 760.04           | 1256463.75                                  | 2074675.04 |                   |                   |
|                                                                                                                                                                                                   | Ground              | 759.90           |                                             |            |                   |                   |
| YGWC-23S<br>(added 10/20/21)                                                                                                                                                                      | Casing              | 764.95           | 1256366.93                                  | 2074734.07 | 33° 27' 06.479" N | 84° 53' 38.506" W |
|                                                                                                                                                                                                   | PK Nail             | 761.74           | 1256367.40                                  | 2074734.44 |                   |                   |
|                                                                                                                                                                                                   | Ground              | 762.00           |                                             |            |                   |                   |
| <b>Notes:</b><br>NAD83(2011) coordinates established by utilizing eGPS VRS & OPUS Solutions<br>Elevations derived from Arcadis BM#1 (El. 758.24)<br>Elevations & coordinates are U.S. Survey feet |                     |                  |                                             |            |                   |                   |



Ms. Lauren Hartley  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, GA 30308

Subject:  
YGWC-24SB, YGWC-50 & PZ-24IB  
Plant Yates, 708 Dyer Road, Newnan, Georgia

Dear Ms. Hartley:

Attached is a copy of the survey report for YGWC-24SB, YGWC-50 & PZ-24IB at  
Plant Yates.

We appreciate the opportunity to work with Georgia Power and look forward to  
working with you in the future. If you need additional information, please feel free to  
contact me.

Sincerely,  
Arcadis U.S., Inc.

Mike Peppers, PLS  
Survey Department Manager

Attachments

Copies:  
Geoffrey Gay, PE

Arcadis U.S., Inc.  
2839 Paces Ferry  
Road SE  
Suite 900 Atlanta  
Georgia 30339  
Tel 770.431-8666  
Fax 770.435.2666  
[www.arcadis.com](http://www.arcadis.com)

Date:  
December 07, 2022

Contact:  
Mike Peppers, PLS

Phone:  
770.384.6638

Email:  
[mike.peppers@arcadis.com](mailto:mike.peppers@arcadis.com)

Our ref:  
30143626

## DESCRIPTION AND SCOPE

Arcadis performed horizontal and vertical field survey locations at YGWC-24SB, YGWC-50 & PZ-24IB. The Arcadis field survey team obtained horizontal and vertical locations for the top of the well casing (TOC) and surveyed the nail located on the concrete pad around the well. Where no nail was present, the field crew surveyed the top of the concrete well pad. The team completed the field survey on these 3 locations on 11/22/2022.

The Arcadis field team utilized a of Leica GS16 Global Positioning System (GPS) to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level.

See the attached exhibit detailing the surveyed location for YGWC-24SB, YGWC-50 & PZ-24IB.

## CERTIFICATION

I, Mike Peppers, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

Mike Peppers, PLS

DATE: December 07, 2022



Mike Peppers, PLS  
2839 Paces Ferry Road SE  
Suite 900  
Atlanta, GA 30339  
770.431-8666

## EXHIBIT 1

### Plant Yates – AMA Monitoring Well and Piezometer Surveys

| Georgia State Plane Grid (NAD83), West Zone                                                                                                                                                                   |                     |                  |            |            |                   |                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|------------|------------|-------------------|-------------------|
| Monument                                                                                                                                                                                                      | Concrete Base Point | NAVD88 Elevation | Northing   | Easting    | WGS84 Latitude    | Longitude         |
| YGWC-24SB                                                                                                                                                                                                     | Casing              | 764.89           | 1258938.45 | 2073965.94 | 33° 27' 31.867" N | 84° 53' 47.785" W |
|                                                                                                                                                                                                               | Disk                | 761.75           | 1258938.85 | 2073965.27 |                   |                   |
|                                                                                                                                                                                                               | Ground              | 761.6            |            |            |                   |                   |
| YGWC-50                                                                                                                                                                                                       | Casing              | 729.78           | 1258123.39 | 2073321.00 | 33° 27' 23.758" N | 84° 53' 55.329" W |
|                                                                                                                                                                                                               | Disk                | 726.73           | 1258134.10 | 2073320.06 |                   |                   |
|                                                                                                                                                                                                               | Ground              | 726.5            |            |            |                   |                   |
| PZ-24IB                                                                                                                                                                                                       | Casing              | 764.92           | 1258927.49 | 2073952.22 | 33° 27' 31.758" N | 84° 53' 47.946" W |
|                                                                                                                                                                                                               | Disk                | 762.08           | 1258928.06 | 2073951.37 |                   |                   |
|                                                                                                                                                                                                               | Ground              | 761.9            |            |            |                   |                   |
| <b>Notes:</b><br>NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions Elevations derived from Arcadis BM#1 (El. 758.24)<br>Elevations & coordinates are U.S. Survey feet |                     |                  |            |            |                   |                   |

Ms. Lauren Hartley  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, GA 30308

Arcadis U.S., Inc.  
2839 Paces Ferry Road  
Suite 900  
Atlanta, GA 30339  
United States  
Phone: 770 431 8666  
Fax: 770 435 2666  
[www.arcadis.com](http://www.arcadis.com)

Date: February 2, 2024  
Subject: Survey of YGWC-29IB, PZ-54D, PZ-55, and PZ-56D

Dear Ms. Hartley,

Attached is a copy of the survey report for YGWC-29IB, PZ-54D, PZ-55, PZ-56D at Plant Yates.

We appreciate the opportunity to work with Georgia Power and look forward to working with you in the future. If you need additional information, please feel free to contact me.

Sincerely,  
Arcadis U.S., Inc.



Mark Lupton, PLS  
Survey Department Manager

Email: [Mark.Lupton@arcadis.com](mailto:Mark.Lupton@arcadis.com)  
Direct Line: 770 384 6578

CC. Geoff Gay, PE

Enclosures:  
Well Survey Report

## DESCRIPTION AND SCOPE

Arcadis performed horizontal and vertical field survey locations at YGWC-29IB, PZ-54D, PZ-55, PZ-56D.

The Arcadis field survey team obtained horizontal and vertical locations for the top of the casings (TOC) and surveyed the nails located on the concrete pads around the well/piezometers. The team completed the field survey on these locations on 01/29/2024.

The Arcadis field team utilized a of Leica GS16 Global Positioning System (GPS) to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level.

See the attached exhibit detailing the surveyed locations for YGWC-29IB, PZ-54D, PZ-55, and PZ-56D.

## CERTIFICATION

I, Mark Lupton, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

Mark Lupton, PLS

DATE: February 02, 2024



Mark Lupton, PLS  
2839 Paces Ferry Road SE Suite 900  
Atlanta, GA 30339  
770.431-8666

## EXHIBIT 1

### Plant Yates – AP-2 Monitoring Well and Piezometer Survey

|                                                                                              |                     |                  | Georgia State Plane Grid (NAD83), West Zone |            |                   |                   |
|----------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
| Monument                                                                                     | Concrete Base Point | NAVD88 Elevation | Northing                                    | Easting    | WGS84 Latitude    | Longitude         |
| YGWC-29IB                                                                                    | Casing              | 712.88           | 1259036.39                                  | 2070237.53 | 33° 27' 32.574" N | 84° 54' 31.800" W |
|                                                                                              | PK Nail             | 710.07           | 1259036.07                                  | 2070238.50 |                   |                   |
|                                                                                              | Ground              | 710.0            |                                             |            |                   |                   |
|                                                                                              |                     |                  |                                             |            |                   |                   |
|                                                                                              |                     |                  |                                             |            |                   |                   |
| <b>Notes:</b>                                                                                |                     |                  |                                             |            |                   |                   |
| NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions    |                     |                  |                                             |            |                   |                   |
| Elevations derived from Arcadis BM#1 (El. 758.24) tied to well YGWC-27i being at El. 713.35' |                     |                  |                                             |            |                   |                   |
| Elevations & coordinates are U.S. Survey feet                                                |                     |                  |                                             |            |                   |                   |

### Plant Yates – AMA Monitoring Well and Piezometer Surveys (Note PZ-54D and PZ-56D are in the same casing)

| Georgia State Plane Grid<br>(NAD83), West Zone                                                                                                                                                                                                                     |                        |                     |            |            |                   |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------------|------------|-------------------|-------------------|
| Monument                                                                                                                                                                                                                                                           | Concrete<br>Base Point | NAVD88<br>Elevation | Northing   | Easting    | WGS84 Latitude    | Longitude         |
| PZ-54D                                                                                                                                                                                                                                                             | Casing                 | 795.56              | 1256904.08 | 2073369.06 | 33° 27' 11.699" N | 84° 53' 54.661" W |
|                                                                                                                                                                                                                                                                    | PK Nail                | 792.50              | 1256904.11 | 2073367.83 |                   |                   |
|                                                                                                                                                                                                                                                                    | Ground                 | 792.5               |            |            |                   |                   |
|                                                                                                                                                                                                                                                                    |                        |                     |            |            |                   |                   |
| <b>Notes:</b><br>NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions<br><br>Elevations derived from Arcadis BM#1 (El. 758.24) tied to well YGWC-41 being at El. 801.23'<br><br>Elevations & coordinates are U.S. Survey feet |                        |                     |            |            |                   |                   |



PLANT YATES – MONITORING WELL AND PIEZOMETER SURVEY – January 2024

| Georgia State Plane Grid (NAD83), West Zone                                                 |                     |                  |            |            |                   |                   |
|---------------------------------------------------------------------------------------------|---------------------|------------------|------------|------------|-------------------|-------------------|
| Monument                                                                                    | Concrete Base Point | NAVD88 Elevation | Northing   | Easting    | WGS84 Latitude    | Longitude         |
| PZ-56D                                                                                      | Casing              | 795.56           | 1256904.08 | 2073369.06 | 33° 27' 11.699" N | 84° 53' 54.661" W |
|                                                                                             | PK Nail             | 792.50           | 1256904.11 | 2073367.83 |                   |                   |
|                                                                                             | Ground              | 792.5            |            |            |                   |                   |
|                                                                                             |                     |                  |            |            |                   |                   |
| <b>Notes:</b>                                                                               |                     |                  |            |            |                   |                   |
| NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions   |                     |                  |            |            |                   |                   |
| Elevations derived from Arcadis BM#1 (El. 758.24) tied to well YGWC-41 being at El. 801.23' |                     |                  |            |            |                   |                   |
| Elevations & coordinates are U.S. Survey feet                                               |                     |                  |            |            |                   |                   |

|                                                                                             |                     |                  | Georgia State Plane Grid (NAD83), West Zone |            |                   |                   |
|---------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------------|------------|-------------------|-------------------|
| Monument                                                                                    | Concrete Base Point | NAVD88 Elevation | Northing                                    | Easting    | WGS84 Latitude    | Longitude         |
| PZ-55                                                                                       | Casing              | 774.02           | 1257131.73                                  | 2073193.74 | 33° 27' 13.939" N | 84° 53' 56.749" W |
|                                                                                             | PK Nail             | 771.32           | 1257130.72                                  | 2073193.55 |                   |                   |
|                                                                                             | Ground              | 771.3            |                                             |            |                   |                   |
|                                                                                             |                     |                  |                                             |            |                   |                   |
| <b>Notes:</b>                                                                               |                     |                  |                                             |            |                   |                   |
| NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions   |                     |                  |                                             |            |                   |                   |
| Elevations derived from Arcadis BM#1 (El. 758.24) tied to well YGWC-41 being at El. 801.23' |                     |                  |                                             |            |                   |                   |
| Elevations & coordinates are U.S. Survey feet                                               |                     |                  |                                             |            |                   |                   |

Ms. Lauren Hartley  
Southern Company  
Environmental Solutions  
241 Ralph McGill Blvd, NE  
Atlanta, GA 30308

Subject:  
Survey of YAMW-1, PZ-35  
Plant Yates, 708 Dyer Road, Newnan, Georgia

Dear Ms. Hartley:  
Attached is a copy of the survey report for YAMW-1, PZ-35 at Plant Yates.

We appreciate the opportunity to work with Georgia Power and look forward to working with you in the future. If you need additional information, please feel free to contact me.

Sincerely,  
Arcadis U.S., Inc.



Mark Lupton, PLS  
Survey Department Manager

Attachments

Copies:  
Geoffrey Gay, PE

Arcadis U.S., Inc.  
2839 Paces Ferry  
Road SE  
Suite 1000 Atlanta  
Georgia 30339  
Tel 770.431-8666  
Fax 770.435.2666  
[www.arcadis.com](http://www.arcadis.com)

Date:  
November 19th, 2025

Contact:  
Mark Lupton, PLS

Phone:  
470-505-3923

Email:  
[mark.lupton@arcadis.com](mailto:mark.lupton@arcadis.com)

Our ref:  
30143625

## DESCRIPTION AND SCOPE

Arcadis performed horizontal and vertical field survey locations at YAMW1, PZ-35.

The Arcadis field survey team obtained horizontal and vertical locations for the top of the casings (TOC) and surveyed the nails located on the concrete pads around the well/piezometers. The team completed the field survey on these locations on 11/17/2025.

The Arcadis field team utilized a Leica GS18 Global Positioning System (GPS) to obtain horizontal locations of the TOC and/or nail or top of the concrete well pad. All horizontal field survey locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet. All horizontal locations meet or exceed an accuracy level of 0.50 foot. All vertical field survey locations were obtained from a level loop, performed with the Leica DNA03 digital level.

See the attached exhibit detailing the surveyed locations for YAMW-1, PZ-35.

## CERTIFICATION

I, Mark Lupton, being a Georgia Licensed Professional Land Surveyor, in accordance with the Georgia Board of Professional Engineers and Land Surveyors do hereby certify that the information contained herein is true and correct and has been prepared in accordance with generally accepted good land survey practices under my supervision, and the data is reliable to a horizontal accuracy of 0.5 foot and an elevational accuracy of 0.01 foot for each surveyed point.

FINAL REVIEW:

Mark Lupton, PLS

DATE: November 19, 2025



Mark Lupton, PLS  
2839 Paces Ferry Road SE  
Suite 1000  
Atlanta, GA 30339  
770.431-8666

# EXHIBIT 1

## Plant Yates – AMA-R6 Monitoring Well and Piezometer Surveys

| Monument | Concrete Base Point | NAVD88 Elevation | Georgia State Plane Grid (NAD83), West Zone |            | WGS84 Latitude   | Longitude        |
|----------|---------------------|------------------|---------------------------------------------|------------|------------------|------------------|
|          |                     |                  | Northing                                    | Easting    |                  |                  |
| PZ-35    | Casing              | 743.81           | 1258593.13                                  | 2073805.49 | 33° 27' 28.44" N | 84° 53' 49.65" W |
|          | PK Nail             | 741.16           | 1258591.81                                  | 2073804.77 |                  |                  |
|          | Ground              | 740.85           |                                             |            |                  |                  |
| YAMW-1   | Casing              | 743.84           | 1258602.06                                  | 2073814.89 | 33° 27' 28.53" N | 84° 53' 49.54" W |
|          | PK Nail             | 741.23           | 1258600.78                                  | 2073814.02 |                  |                  |
|          | Ground              | 740.93           |                                             |            |                  |                  |

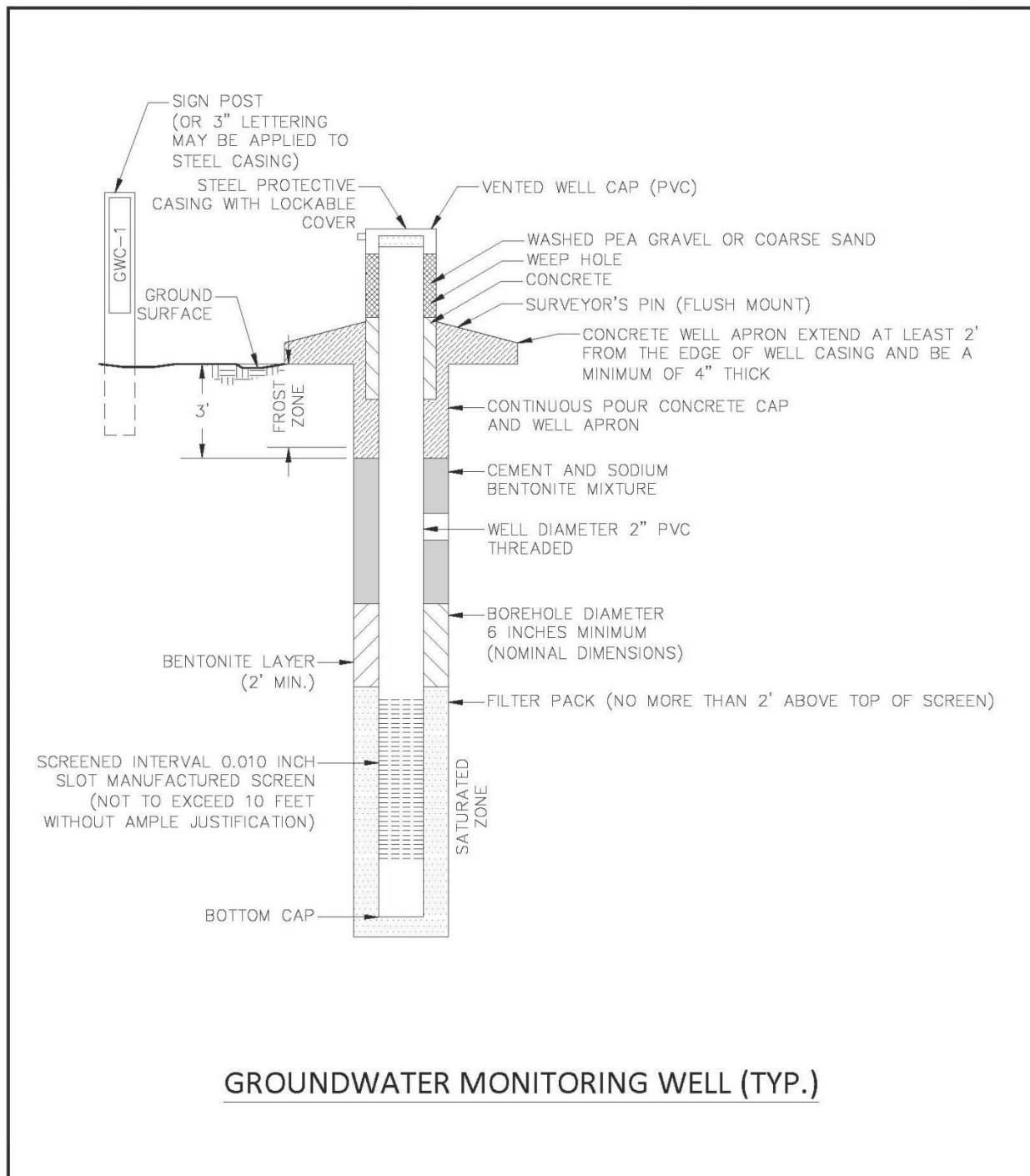
### Notes:

NAD83(2011) coordinates system on site established by utilizing eGPS VRS & OPUS Solutions

Elevations derived from Arcadis BM#1 (El. 758.24) tied to well YGWC-27i being at El. 713.35'

Elevations & coordinates are U.S. Survey feet

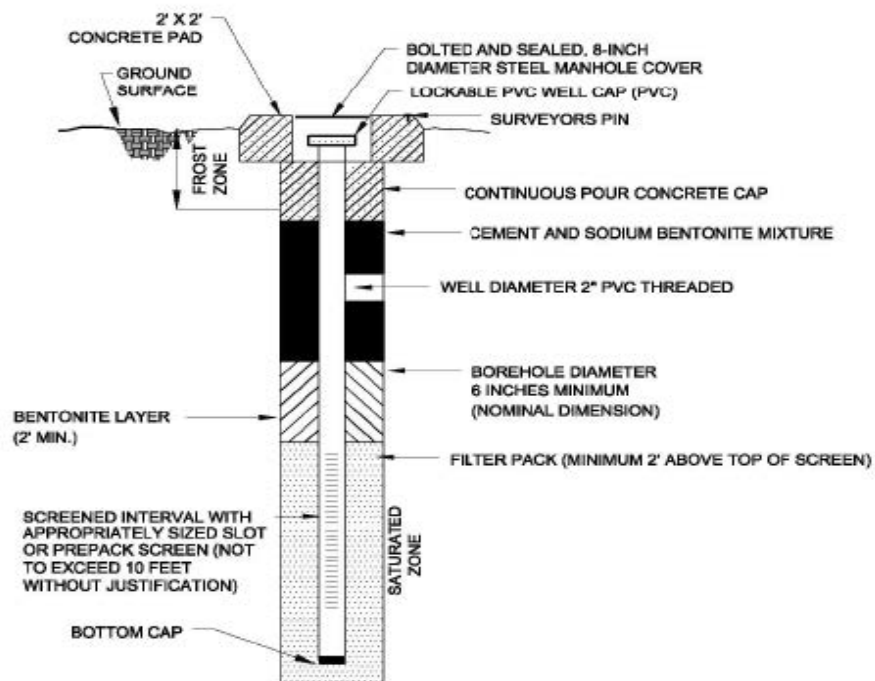
## APPENDIX D1. GROUNDWATER MONITORING WELL DETAIL



## APPENDIX D2. GROUNDWATER MONITORING WELL DETAIL

### FLUSH-MOUNT SURFACE COMPLETION

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GROUNDWATER MONITORING WELL (TYP.)



## APPENDIX E. GROUNDWATER SAMPLING PROCEDURES

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Groundwater sampling will be conducted using the most current USEPA Region 4 Field Quality and Technical Procedures as a guide. The following procedures describe the general methods associated with groundwater sampling at the site. Prior to sampling, the well must be evacuated (purged) to ensure that representative groundwater is obtained. Any item coming in contact with the inside of the well casing or the well water will be kept in a clean container and handled only with gloved hands.

Sample personnel will follow the procedures below at each well to ensure that a representative sample is collected:

1. Check the well, the lock, and the locking cap for damage or evidence of tampering. Record observations and notify Georgia Power if it appears that the well has been compromised.
2. Measure and record the depth to water in all wells to be sampled prior to purging using a water measuring device consisting of probe and measuring tape capable of measuring water levels with accuracy to 0.01 foot. Static water levels will be measured from each well, within a 24-hour period. The water level measuring device will be decontaminated prior to lowering in each well using the procedures described in the latest version of the Region 4 USEPA LSASD, Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205-R#) as a guide.
3. Install Pump: If a dedicated pump is not present, slowly lower the pump into the well to the midpoint of the well screen or a depth otherwise approved by the hydrogeologist or project scientist. The pump intake must be kept at least two (2) feet above the bottom of the well to prevent disturbance and suspension of any sediment present in the bottom of the well. Record the depth to which the pump is lowered. All non-dedicated pumps and wiring will be decontaminated before use and between well locations using the procedures described in the latest version of the Region 4 USEPA LSASD, Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205-R#) as a guide.
4. Measure Water Level: Immediately prior to purging, measure the water level again with the pump in the well. Leave the water level measuring device in the well.
5. Purge Well: Begin pumping the well at approximately 100 to 500 milliliters per minute (mL/min). Monitor the water level continually. Maintain a steady flow rate that results in a stabilized water level with 0.3 foot or less of variability. Avoid entraining air in the tubing. Record each adjustment made to the pumping rate and the water level measured immediately after each adjustment.
6. Monitor Indicator Parameters: Monitor and record the field indicator parameters (turbidity, temperature, specific conductance, pH, oxidation reduction potential (ORP), and dissolved oxygen [DO]) approximately every three to five minutes. The well is considered stabilized and ready for sample collection when the indicator parameters have stabilized for three consecutive readings at a minimum:

±0.1 for pH

±5% for specific conductance (conductivity)

±10% for DO where DO > 0.5 mg/L (milligrams per liter). If DO < 0.5 mg/L, no stabilization criteria applies

≤5 NTU for turbidity

Temperature – Record only, not used for stabilization criteria

ORP – Record only, not used for stabilization criteria.

7. Collect samples at a low-flow rate in accordance with the most current version of USEPA Region 4 SEDS guidance document, Operating Procedure – Groundwater Sampling (EPA, SEDSPROC-301-R#), and such that drawdown of the water level within the well is stable. Flow rate must be reduced if excessive drawdown is observed during sampling. All sample containers should be filled with minimal turbulence by allowing the groundwater to flow from the tubing gently down the inside of the container.
8. Compliance samples will be unfiltered; however, to determine if turbidity is affecting sample results (i.e., >10 NTU), duplicate samples may be filtered in the field prior to being placed in a sample container, clearly marked as filtered and preserved. Filtering will be accomplished by the use of 0.45-micron filters on the sampling line. At least two filter volumes of sample will pass through before filling sample containers. A new filter must be used for each well and each sampling event. Filtered samples are not considered compliance samples and are only used to evaluate the effects of turbidity. Additional details related to managing for elevated turbidity is discussed below.
9. All sample bottles will be filled, capped, and placed in an ice containing cooler immediately after sampling where temperature control is required. Samples that do not require temperature control will be placed in a clean and secure container.
10. Sample containers and preservative will be appropriate for the analytical method being used.
11. Information contained on sample container labels will include:
  - a. Name of facility
  - b. Date and time of sampling
  - c. Sample description (well number)
  - d. Sampler's initials
  - e. Preservatives
  - f. Analytical method(s)

12. After samples are collected, samplers will remove all non-dedicated equipment. Upon completion of all activity the well will be closed and locked.
13. Samples will be delivered to the laboratory following appropriate chain-of-custody (COC) and temperature control requirements. The goal for sample delivery will be within 48 hours of collection; however, at no time will samples be analyzed after the method-prescribed hold time.

Throughout the sampling process, new latex or nitrile gloves will be worn by the sampling personnel. A clean pair of new, disposable gloves will be worn each time a different location is sampled, and new gloves will be donned prior to filling sample bottles. Gloves will be discarded after sampling each well and before sampling the next well.

The goal when sampling is to attain a turbidity of less than 5 NTU; however, samples may be collected where turbidity is less than 10 NTU and the stabilization criteria described above are met.

If sample turbidity is greater than 10 NTU and all other stabilization criteria have been met, samplers will continue purging for up to 3 additional hours in order to reduce the turbidity to less than 10 NTU, as follows:

- If turbidity remains above 5 NTU but is less than 10 NTU, and all other parameters are stabilized, the well can be sampled.
- Where turbidity remains above 10 NTU, an unfiltered sample will be collected followed by a filtered sample that has passed through an in-line 0.45-micron filter attached to the discharge (sample collection) tube. Data from filtered samples will only be used to quantify the effects of turbidity on sample results.

Samplers will identify the sample bottle as containing a filtered sample on the sample bottle label and on COC form.



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